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MYSTERIOUS INSECTS BORE INTO ROLL OF PAPER

Bulkley, Dunton & Co. Find Roll of Ground Wood Super Stock Received From Finland Infested With What Appears to Be a Speci of Yellowish Ant — Insects Are Hardly Visible to the Naked Eye, But Their Paper Eating Ability is Worthy of Consideration — Did They Come From Finland or Were They Picked Up on Shipboard During Passage Over?

Bulkley, Dunton & Co., of 75 Duane street, are trying to solve the mystery surrounding a roll of paper received in a recent shipment from Finland and which has been partially devoured by strange insects which have not yet been classified. The roll of paper has attracted a great deal of attention and none of those who have seen it and examined the work done by the insects have been able to offer a satisfactory explanation.

The roll is one of a shipment of ground wood super stock and as soon as it was placed in the stock room of Bulkley, Dunton & Co., the keen-eyed custodian of the stock room noticed that something had eaten away two of the wooden staves which bound the roll. He investigated and discovered that the paper instead of being the regulation stock expected was of some peculiar pattern design. Further investigation showed him that what he had at first taken to be a case of artistic handiwork was simply the disastrous achievements of an army of insects so small that they were hardly visible to the naked eye.

Infested With Small Insects

Pulling away the paper he found that the roll was literally infested with these minute intruders and that they were slowly and laboriously eating their way to the heart of the roll, having already penetrated about eight inches.

In alarm, he turned his attention to the other rolls received in the same shipment, but found that these had been unmolested. Apparently the insects had selected this one roll and had concentrated all their energies on devouring it, a piece of thoughtfulness for which Bulkley, Dunton & Co. are duly thankful.

An accompanying picture shows one of the cut-outs from the roll, and the strange part of it is that the insects apparently work with a consistent design instead of haphazard, for the cut-outs are as much alike as two peas in a pod. They cut around in a jagged way, but leave the piece hanging, apparently having some reason of their own for not completing the cut-out.

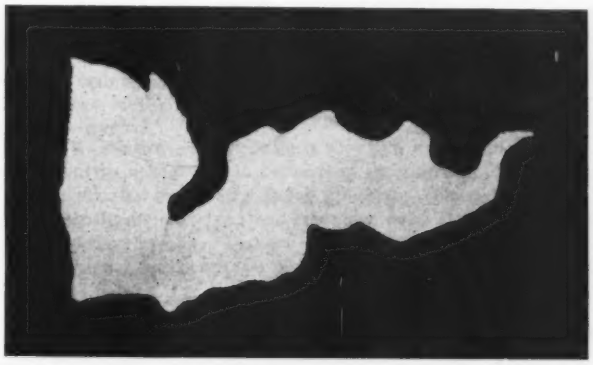
Look Like Yellowish Ant

Those who have seen the insects have been unable to classify them and it would probably take an expert entomologist to call them by their proper name. They are so minute that one can get only a poor idea of what they are like and as yet they have not been subjected to the intensifying powers of the microscope. They look more like a yellowish ant than anything else.

Six months ago Bulkley, Dunton & Co. discovered another roll of paper which was suffering from the same blight, although it had not been damaged to the extent that this one has. Those connected with the house recall no other experiences of the kind, and the custodian of the stock room referred to above, who has held that position for seventeen years, declares he has never seen anything of the kind before and is unable to explain it.

Do Insects Come from Abroad?

The question which Bulkley, Dunton & Co. are most eager to settle is whether or not the stock picked up the insects over in Finland, whether the insects annexed themselves to the paper on shipboard or whether they are domestic insects. If any other paper men have had similar experience, the concern would be glad to hear from them and to compare notes with them, for if the ants come from abroad it would be a good thing to get busy now before the insects have a chance to bring a real paper blight to these shores.



CUT OUT BY INSECTS

Strange Features of Work

The ants are still working in the roll and they are being watched so closely that the Bulkley, Dunton & Co. attaches will be able to contribute much information on their methods to entomology. The strange feature of their work is that they show no disposition to roam, and apparently find going so good in this particular roll that they have no disposition to transfer their attention to other rolls. The fact that they can bore into wood and make such inroads into one roll of paper is sufficient demonstration of the havoc they could work if an army of them saw fit to attack an entire shipment of paper. Whatever they are they are not an asset to the paper business.

PHILADELPHIA HAS GENERAL ADVANCE IN PAPER STOCK

Higher Prices Than Those of a Week Ago Are Quoted in Every Grade — Dealers Report Difficulty in Procuring Stock to Fill Orders — Mills in Manayunk District Running on Part Time — Fine Paper Men Discuss High Cost of Rags and Probable Effect on Paper Prices — Garrett Paper Corporation Installing New Equipment for Manufacture of Its Specialties.

[FROM OUR REGULAR CORRESPONDENT.]

PHILADELPHIA, August 25, 1924.—The outstanding factor in the local paper industry was the rapidity with which the prices of paper stock advanced during the week and the scarcity of all grades, a situation which dealers assert, will mean even higher quotations than those now prevailing. In every grade there was a markedly higher quotation than those of the previous week. While many of the quotations of the early weeks of August were made in response to inquiries and a broadening demand from the mills all over this section of the country, those of this week were for actual orders placed on the books of the dealers for immediate shipment. Dealers are having some difficulty in procuring the necessary quantities to meet orders, warehouses being almost depleted, and, in some instances, there are no available supplies on hand and very poor prospects of securing them at an early date.

While there is not the same rushing and scramble for stock in the rag markets, there is a noteworthy improvement. In those grades which are extremely active and scarce a decided soaring in range of values was quoted to the mills. Roofing stocks, baggings and thirds and blues have been the leading sellers with prices showing the same percentage of increase as those for the paper stock grades that came under the list of active mill commodities.

Fine Papers Improve

There continued an improved demand for fine papers. While no great rush of business has been noted in this section of the trade, there was a steadily broadening interest in actual orders and very numerous inquiries from publishers and printers of the larger type.

The coarse paper division is the laggard in the paper industry in so far as local market conditions are concerned, but inquiries have slightly increased.

Local Mills on Part Time

All the mills in the Manayunk District, the nucleus of Philadelphia's paper-producing industry, are running on part time operation. A few of the mills were shut down last week and resumed operation the early part of this week, but only on a three-day schedule of production. There is not enough business being booked to keep hands employed on the full-time basis, and therefore the part-time schedule was put into effect. Inquiries of conditions in the local mill market show that there are many inquiries coming into all the plants including the board, wrappings, fine papers and specialties, such as glassine products and high-grade wrappings. But those orders that have already been booked will not warrant an early resumption of the mills on normal operation basis. There was noted during the week an inclination on the part of some distributors to come forth with larger orders for the specialties made by the McDowell Paper Mills. This particular distributor who, in other years bought several carloads at a time, has, during the past six months, been buying only in single carloads. Last week when he came into the market again for his Fall stocks, he found that there were no accumulation of stocks on hand and that the market price had advanced. Seeing the possibility of further increases, he placed an order for three carloads at present quotations, taking advantage of what he believed to be the lowest prices that are to be seen this year.

Paper distributors express surprise when the mills state that they have very little stocks on hand and are becoming a little anxious over supply and demand as it relates to coming business. The mills are contemplating resumption on a broader scale next month now that they feel that the bottom has been reached.

Fine Paper Division Meets

In the monthly meeting of the Fine Paper Division of the Paper Trade Association, held last week in the Bourse, the chief topic under discussion was the high cost of rags and other paper stock and its profitable effect on the price of papers in the near future. Most of the members expressed the opinion that the soaring prices of the raw materials and their scarcity would have a tendency to raise the quotations from the mills. The discussion took place during the luncheon served at the noon hour to the members.

Garrett Paper Corporation Improves Mill

For the purpose of increasing its production, the Garrett Paper Corporation, of Newtown Square, Pa., has completed the installation of new equipment for the manufacture of its specialties. The new units consist of a 60-inch Manning, three-cylinder machine, and other attachments and mechanical devices for the modernizaing of the machinery used in the manufacture of chip boards in rolls, and other paper specialties produced by the mills and developed during the three years that it has been under the control of Garett interests.

N. A. Considine on European Paper Market

A review of the Scandinavian paper markets was given to the *Paper Trade Journal* by President Norbert A. Considine, of the Paper House of Pennsylvania, who returned to his desk last week following a two-months' sojourn in Europe, where he went as a representative of the Poor Richard Club to attend the Advertising Men's Convention held in London early in July. As vice-president of the Poor Richard Club, he was on the Executive committee of the convention and participated in the honors accorded to the officers of the Advertising Clubs of the World. Before returning to America he made a tour of the paper mills in Sweden and Norway, from which he receives large tonnage of news print and other papers. He found the mills all working to capacity and disposing of all stocks as soon as manufactured with prices showing an advance over those quoted six months ago. Most of the papers manufactured in the Scandinavian mills are being consumed in European markets and very little is left for shipment to this country, the manufacturers preferring to confine sales to home markets because of the high tariff and cost of shipping their papers to American points and the unwillingness of American distributors to pay the higher prices which they can demand in trading with its nearest consumers. Much trade that formerly went to German manufacturers he found was being diverted to northern mills, owing to inability of the German manufacturers to produce low-priced papers through lack of financial backing. Most of the German mills have become impoverished because of scarcity of funds to keep up production on a broad scale and consequently the Scandinavian mills are taxed to take care of the fields, formerly the source of German distribution. In his tour of the paper manufacturing centers of Germany, he found but little paper being produced.

News of the Trade

Vacation days have lured the members of the local paper distribution trade to many parts of the country and abroad. Among those who have returned to their desks this week from summer trips are President Nathan D. Isen, of the Enterprise Paper Company, who made a trip through western New York and to Toronto, covering a half month.

Sales Manager Andrew Simon, of the Beck Paper Company, returned from a fortnight in Ocean Grove, N. J.

Others who are now away are Simon Walter, head of the firm bearing his name, motoring through the Maine resorts in the vicinity of Poland Springs, and who will visit the Poconos before returning; Walter H. Matthias, of Matthias and Freeman Company, now at Ocean City, and his business associate, Richard J. Freeman, sojourning at Spring Lake; President Frank A. O'Neill, of the Paper Manufacturers' Company, who left this week for the Poconos to remain until the middle of September, and the entire business family of the Atlantic Paper Company, with the exception of President Thomas F. Simpson, who have gone to Ocean City for the rest of the month.

A trip to the Windsor Locks, Conn., mills was made by T. H. B. Smythe, of the J. L. N. Smythe Company, who will also make a round of the New England States before returning home. The Windsor Locks mills are owned by the Smythe Company and produce paper towels and napkins for the firm's distribution. Vice-President Clark H. Morian is touring through Pennsylvania.

Among the Philadelphia members of the printer supply trade who attended the Graphic Arts Convention held in Milwaukee last week were M. Gibbin-Neff of the Dill and Collins Company and assistant advertising manager, J. W. Berry.

New Bogalusa Mills Start Operating

BOGALUSA, La., August 25, 1924.—The present month has been an important one in the industrial life of Bogalusa as it has marked the initial operation of a new paper mill and also a new bag mill. The new Fourdrinier of the Bogalusa Paper Company began operating recently, and a few days later the machinery was tested in the new bag mill of the Union Bag and Paper Corporation, and that mill will be in full operation early in September. The two new industries represent an investment of more than $1,000,000.

The bag factory will employ about 75 people and the new paper mill about the same number. The new paper mill will make a kraft or wrapping paper. The Fourdrinier will make paper 144 inches wide. The new machine will make kraft of all standard weights between 25 and 110 pounds on a 24 x 36 basis. It will have a daily capacity of 55 tons. There are seven units and the motors range from 50 to 100 horsepower. The finishing room is 160 x 173 feet, the machine room 288 x 60 feet and the beater room 166 x 88 feet. The building is of the most modern type. The buildings were erected by Hampton Reynolds, of New Orleans, and the James L. Carey Company, of Chicago, were the consulting engineers, with J. J. Marley representing them. Construction began on August 15, 1923.

P. F. McMahon has entire charge of the bag factory. The factory has 35 machines and a daily capacity of 3,000,000 bags. Bags from one-fourth of a pound to thirty-five pounds will be made, including auto, flat, millinery and square. There is also a machine shop and a printing department, the latter having two Gordon presses.

Suit Brought by Trustee of Reid Pulp Corp.

ALBANY, N. Y., August 25, 1924.—Complaint has been filed in the Albany county clerk's office in a suit for $20,000 brought by John L. Bame, of Nassau, N. Y., trustee in bankruptcy for the Reid Pulp and Paper Corporation. It is alleged this amount was paid by the corporation to Robert H. Reid, former president of the corporation. The directors of the corporation named in the action are Benjamin F. Witbeck, Clerk W. Twist, Joseph H. Harrington, Arthur Witbeck and the estate of Horace S. Bell. The action is based on the claim that by making this payment to Reid to whom B. F. Witbeck was then indebted and the corporation also being indebted to Witbeck the payment was in legal effect made to Witbeck, although actually made to Reid. The attorney for the plaintiff is Borden H. Mills, of Albany.

Import Committee to Start Financing

The next meeting of the Import Committee of the paper industry will be held at the headquarters of the American Paper and Pulp Association on Thursday, September 11, and at that time it is expected that the letter will be framed which is to be sent out to paper manufacturers asking for their financial aid in carrying on the important work of the committee.

It is expected that little difficulty will be encountered in raising funds for the paper manufacturers—even those who were inclined to be lukewarm from the start—have come to realize the great good to the industry which will result from the committee's activities. They have already showed a fine cooperative spirit, and it is not believed that any of them will balk when it comes to the question of finance. Each manufacturer will be told the logical amount which the committee feels he should contribute, and then he will be left to make a contribution in accord with the amount suggested or, if he considers the amount excessive, such an amount as he feels disposed to give. The committee has already done some important work and has laid a ground plan for larger efforts.

The Wise Plan, drawn for the purpose of eliminating unfair European competition, has been adopted for the committee's guidance in its work, and Henry A. Wise, father of that plan, has been engaged as general counsel. It will fall to him to deal with all legal questions with which the committee may become involved and where prosecutions for violations are called for he will superintend the collecting of evidence, will prepare the cases and will bring them before the proper Federal authorities.

The field for the committee's efforts may be said to be a limitless one. There are endless cases of paper being sent into this country under improper classification, and there are many other technical violations of a complicated nature which call for tedious investigation before they can be successfully prosecuted. The Government has done a great deal to head off the paper bootleggers, as they are called, but the Government labors under some handicap, and the efforts of the Import Committee will prove of great assistance in stopping the violations which are becoming more and more general.

Paper and Pulp Section to Meet at Louisville

The National Safety Council will hold its thirteenth annual safety congress at Louisville, Ky., September 29 to October 3.

The Paper and Pulp Section will hold its first session at 10 o'clock Tuesday morning, September 30, at the Brown Hotel, and the second session at 10 o'clock Wednesday morning at the same place. The addresses will include the following:

"A Digest of the Annual Congress Proceedings of the Paper and Pulp Section."

"Round-Table Discussion of Paper and Pulp Mills Safety Code" led by R. M. Altman, chairman, Paper and Pulp Mills Safety Code Committee, Marathon Paper Mills Company, Rothschild, Wis.

"Health Service Work in Paper Mills," Dr. Louis Frechtling, Director, Department of Industrial Relations, Champion Coated Paper Company, Hamilton, Ohio.

"Hazards of the Sulphate and Soda Processes," Charles Ludwig, Assistant Superintendent, Mead Pulp & Paper Company, Chillicothe, Ohio.

Resigns From Dilts Machine Works

FULTON, N. Y., August 23, 1924.—F. L. Flanders has severed his connection with Dilts Machine Works, Inc., of Fulton, N. Y., having recently resigned as secretary and disposed of his stock holdings in this company. Mr. Flanders has been with this company since 1908, and since 1913 has been an officer and director of the corporation. His plans for the future are indefinite, but for the present he will remain in Fulton.

REAL BOOM ON AT ONTARIO'S NEWEST PULP AND PAPER TOWN

Kapuskasing is Today the Fastest Growing Place in Northern Ontario and Mills of Spruce Falls Co. Are Rushing at Full Capacity—British Association for Advance of Science Visits Plant of Abitibi Power and Paper Co.—Joseph Kilgour Explains Why Prices of News Print is High—Manufacturer of Pulp Stones Becoming Important Industry in Vancouver—General News of the Trade.

[FROM OUR REGULAR CORRESPONDENT.]

TORONTO, Ontario, August 25, 1924.—The newest pulp and paper town in Ontario is Kapuskasing, where the Spruce Falls Company, an allied organization of the Kimberly-Clark Company, Neenah, Wis., operates a busy pulp mill. The rated capacity of the sulphite pulp plant is one hundred tons daily. It is running well above that mark and a new goal of one hundred and twenty tons has been set. Great interest is being taken by the employees in safety work and the slogan is "Kapuskasing, the Home of the Safest Pulp Mill Crew in Canada." Many improvements have been made in the town site during the last few months. New sidewalks and roads have been built, sewers and water mains extended and one hundred beautiful homes erected, fully equipped with all modern conveniences. Kapuskasing, which has a well-arranged Community Club House for the employees of the company, is at present the fastest growing place in Northern Ontario.

Scientists Pay Visit to Iroquois Falls

Iroquois Falls, Ont., the home of the big news print paper plant of the Abitibi Power and Paper Company, was recently visited by the members of the British Association for the Advancement of Science, who arrived in two special trains over the Canadian National Railway. The large party was broken up into a number of small groups and shown through every department of the large pulp and paper mills. The members were delighted with the attractive town.

Mr. Kilgour Speaks on News Print Prices

Joseph Kilgour, of Toronto, president of the Canada Paper Company, Windsor Mills, Que., in a recent interview stated that he agreed with the statement of Lord Beaverbrook, the widely known Canadian publisher in London, Eng., who visited Toronto last week, that the price of news print was too high. The reason, he said, was overproduction, and the fact that Swedish manufacturers of news print are again furnishing strenuous competition for Canadian producers. He added that freight rates were excessive in comparison with the cost of ocean shipping and European labor was so cheap that Europe could undersell Canadian plants. Major Kilgour further declared that Canadian wages were at too high a peak.

Making Pulpstones in Vancouver

The manufacture of pulpstones, which are used in the big grinders for making wood pulp, is, according to word received in the East from Vancouver, now being carried on in that city and promises to be an important industry in British Columbia. The manufacturers are the J. A. & C. H. McDonald Company, Vancouver. The rock from which the stones are made comes from the firm's quarries on Newcastle Island near Nanaimo, and is reported to be of exactly the peculiar constitution required in a pulp grinder. Even at the best the stones last only a year and, in British Columbia, some sixty of them are now being used. The stones range in weight from two to seven tons and cost from $200 up.

Restrain Salesman from Changing Job

To what extent the personality of a salesman counts in the business of a company was demonstrated in the law courts in Toronto last week when Justice Wright, upon the application of the Dominion Loose Leaf Ledger Company, of Ottawa, granted an injunction restraining Charles S. Manuel, a former salesman in their employ, from working for a rival concern in the same territory, in the person of the Copeland-Chatterson Company, Toronto. Justice Wright intimated the right of Manuel, who resides in London, Ont., to sue for damages and in granting the injunction stipulated that the case must come to a speedy trial. Manuel resigned from the sales staff of the Dominion Loose Leaf Company early in the year because he became dissatisfied.

Charter Granted to New Company

A provincial charter has been granted to the Feldman Timber Company, Limited, with headquarters at Schumacher, Ont., to manufacture and deal in lumber, pulp wood and other forest products. The authorized capital is $100,000 and Alex. Feldman and Abraham Feldman of Tidale township, Cochrane district, are two of the incorporators of the new concern.

Notes and Jottings of the Industry

George Allen, of Buntin, Reid Company, wholesale paper dealers, Toronto, has returned from spending his holidays at the Muskoka Lakes.

The Toronto Carton Council held its monthly meeting at the King Edward Hotel, Toronto, last week and the members discussed several important matters connected with the paper box trade.

E. S. Munroe of the Wilson, Munroe Company, wholesale paper dealers, Toronto, and Treasurer of the Canadian Paper Trade Association, who has been touring the British Isles with the Canadian Lawn Bowlers, has returned home.

William Wood, of the sales staff of the Fred W. Halls Paper Company, Toronto, who recently joined the ranks of the benedicts, was presented by his fellow employees with a handsome set of silver.

J. A. Davidson, for six years on the staff of Buntin, Reid Company, has assumed the management of the Toronto Envelope Company, 9 Brant street, Toronto, in succession to E. J. Greigg, who retired recently owing to ill health.

A. F. Rutter, president of Warwick Brothers & Rutter, manufacturing stationers, Toronto, who has been ill for a long time, is now able to be out but has not sufficiently recovered to resume active business.

Joseph Taylor, sales manager of the E. B. Eddy Company, Hull, Que., recently spent a few days in Toronto on business and reports trade conditions improving.

O. H. Moore, manager of the Hinde & Dauch Paper Company of Canada, Toronto, has returned from spending his vacation at his summer home at Port Sandfield, Muskoka Lakes.

E. Victor Donaldson, sales manager of the Rudd Paper Box Company, Toronto, has gone on an extended business trip to the Pacific Coast.

A. S. Ball, of the sales staff of the Provincial Paper Mills, Toronto, is spending his vacation at Hartley's Bay, Ontario.

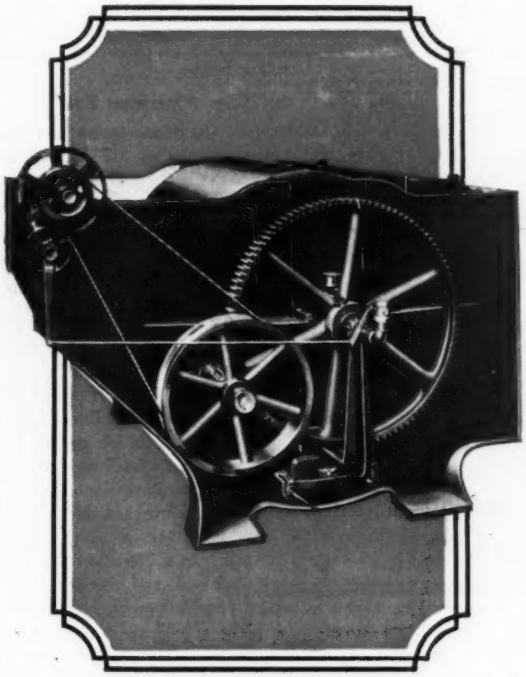
W. H. Sherriff, of the Hodge-Sheriff Paper Company, Toronto, who has been absent in England for several weeks on a business trip in the interest of kraft paper, has returned home.

The Interlake Tissue Mills Company, Merritton, Ont., who are making a very attractive exhibit at the Canadian National Exhibition, are distributing a neat booklet setting forth the various line manufactured in toilets, tissues, sulphite wrappings, waxing papers, French folios, light weight krafts, fruit wraps, etc.

Charles V. Syrett, manager of the Victoria Paper and Twine Company, Ontario, who has been ill for several days, is recovering and leaves shortly on an extended trip to the Pacific Coast.

W. J. Gage & Co., manufacturing stationers, Toronto, are making a striking exhibit at the big Canadian National Exhibition, Toronto, featuring Holland linen and other brands of writing papers.

E. R. Buscombe, of E. Pullan, Limited, Toronto, has returned after spending his holidays in Woodstock and other points in western Ontario.



A penny saved is a penny earned

Bird Save-all

BIRD MACHINERY

THE thin film of Fibres on the Bird Save-All wire looks like a mighty small proportion of the stock handled by the mill. Yet this film is constantly forming. From 500 to 2,000 lbs. of stock are saved by the end of the day. And every pound of stock recovered means an additional profit earned for the mill.

Invariably the value of the stock recovered pays all costs of the installation within six to nine months' time and often sooner.

The Bird Save-All is automatic in operation and requires practically no attention. Wires last a year and longer. It is recognized as one of the most important money makers in a paper mill.

BIRD MACHINE COMPANY

South Walpole, Massachusetts

7051

PAPER DEMAND IN CHICAGO SHOWING STEADY RECOVERY

Fine Branch of Industry Experiences Greatest Improvement and Coarse Papers Are Beginning to Pick Up — Paper Stock Condition is Much Better Than for Some Time — American Envelope Co. Moves Soon to Fine Modern Factory, at 3100 W. Grand Avenue — United Paperboard Company's Net Earnings for Year Ended May 31 Said to Be Considerably Lower Than for Previous Year.

[FROM OUR REGULAR CORRESPONDENT.]

CHICAGO, Ill., August 25, 1924.—Optimism becomes stronger with each week that brings the paper industry nearer to the fall business season. There is no question whatever but that merchants expect a renewal of active demand for all grades of paper early in September. Even at present some of them state that this stage of the summer is better than last and the market is not entirely devoid of orders. In fact, there seems to be plenty for those who will go after them.

Of particular note is the improvement in the fine branch of the industry. Book papers are going somewhat more regular than they have over the last two months. Mills are reported as operating very close to full capacity and in many cases they are running on a regular schedule of production. Others have two and three weeks of orders on their books, which is said to be a healthy condition. Many printers, who are the principal consumers of coated papers in this district, are becoming more active in their operations. Some of them are not so busy as others, depending upon the class of work they are doing.

Bonds have a slight tendency upward in demand. They have been spotty long enough now, so the merchants, wholesalers and manufacturers think, and the time is ripe for a stronger call for all grades. Like in coated papers, there are certain mills which are running more nearly to capacity than others, due to the nature of the product they turn out. Some of the well-known producers are in better shape now than they have been in for some time. Prices have held firm both from the mill and from the merchants. There have been less tendencies to go below established figures of late than at any time during the summer season.

Coarse papers are expected to strengthen considerably in the near future. This market has been somewhat exacting with those who are most prominent in it, for they have been required to ply the trade for all it would stand this summer. Now that business shows signs of betterment, merchants look for enough orders to keep them going steadily all through the fall and winter months. Industrial buyers are making themselves more prominent in the market by their buying, which has taken on new life.

Paper Stock Improves

Most noticeable of all the branches of the paper industry in its livelier selling during the past two weeks is the paper stock division. This indeed reflects the condition among board producers. For most of June, July and that part of August already gone, board mills were operating at greatly curtailed schedules. Business was low. Then it suddenly took a spurt ahead and immediately it was reflected in the paper stock market, principally those grades used in the composition of boards and containers. Week before last prices shot up perceptibly. A ten to fifteen per cent increase went into effect. Last week several items went up further.

As yet paper stock dealers have not been able to secure enough accumulations to supply the demand. Even when prices were down, there was difficulty in acquiring enough to meet the need. Plants were closed down several days each week and some of the packing machines were forced to remain idle. Even now, with higher prices in vogue, there is trouble getting a sufficient quantity and dealers state they would be able to dispose of all they could get right now at the prevailing figures.

Big New Plant for American Envelope Co.

The American Envelope Company announces that about September 15 it will leave the present address at 817 W. Washington street, Chicago, Ill., to move into a handsome and modern new factory and office building at 3100 W. Grand avenue, Chicago. The move is a tribute to the business ability of H. G. Steinson, who, in his nineteen years as president of the organization, has, with his associates, built up the business from a little struggling concern into an organization that ranks with the largest in the industry.

The new plant is one of the most modern and best equipped in the United States, fitted thoroughly with speedy, automatic machinery which greatly increases the manufacturing facilities and reduces manufacturing costs. Every department is under one roof and on one floor—60,000 square feet of floor space. Every operation is coordinated with every other, so that each job moves smoothly along without a moment's delay or a single backward move.

Employees work under ideal conditions, daylight from four sides, well-equipped dining room, rest rooms, and large playground with tennis courts, baseball diamonds and a complete equipment of lockers and showers. All of these things, Mr. Steinson feels, will make for better working conditions, and that they will benefit the buyer of envelopes as well as the factory and factory employees.

In addition to the new plant at Chicago, the American Envelope Company has established branches at Detroit and Milwaukee in order to facilitate shipments and improve their service to their customers in the territories adjacent to those cities.

United Paper Board Year's Net Is Lower

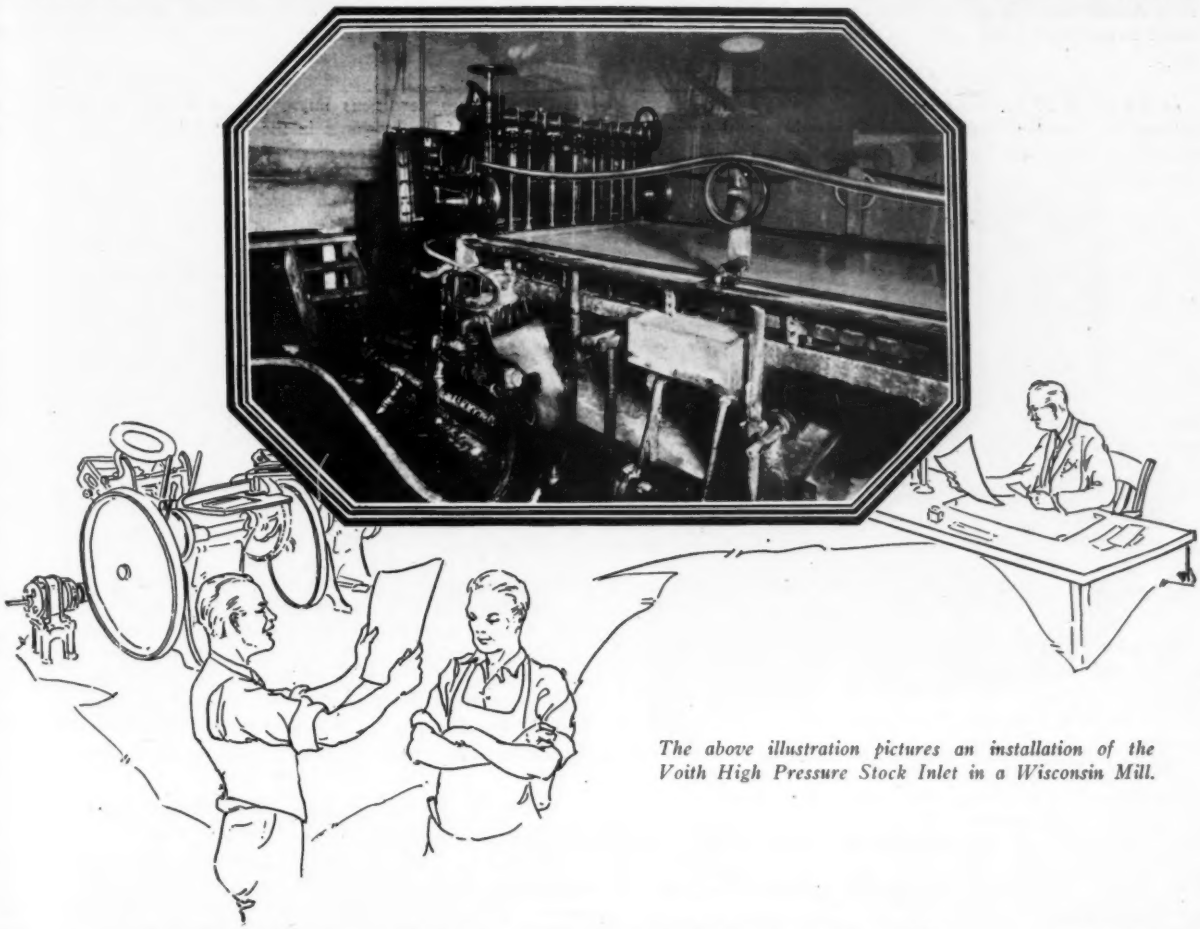
It is reported in the Chicago paper market that the United Paperboard Company's net earnings for the year ended May 31, last, were $123,420, after all charges, equivalent after allowing $79,476 for preferred dividends, to 42 cents a share earned on the $10,500,000 of common stock outstanding. This compared with a net income of $346,275 in the previous year, equivalent after preferred dividends, to $265 a share earned on the common.

Mill earnings in the last fiscal year totaled $705,768, as against $881,714 in the previous twelve months. Expenses, taxes and other charges show an increase of $46,909 to $282,348, while the amount set aside for depreciation was unchanged at $300,000. After dividend payments there remained a surplus of $43,944, as against $266,793 in the previous year.

Lord Beaverbrook Says News Print Is too High

[FROM OUR REGULAR CORRESPONDENT.]

MONTREAL, Que., August 25, 1924.—Lord Beaverbrook, proprietor of the *London Daily Express*, is at present on a visit to Canada. In an interview in Montreal he said that Canadian news print manufacturers are getting too high a price for their product, and the price is sure to come down. "By this time next year it will not be so high as it is today," he said. "I have just visited at Bathurst, N. B., a most compact news print plant, owned by Mr. Angus McLean, and I was delighted to see that Canada's premier industry is being developed so well in my native province. News print is of great importance in Canada. Lord Rothermere is one of the largest news print consumers in the world and uses more than 100,000 tons a week. If he bought all of it in Canada, he would be one of the biggest customers Canada has. I am told that Lord Rothermere is about to build a new news print mill on the St. Lawrence above Quebec. Sir William Price is transforming the Saguenay and I am told that before long he will have an output of 1,000 tons of news print a day. This is enough to supply Lord Rothermere and two others like him."



The above illustration pictures an installation of the Voith High Pressure Stock Inlet in a Wisconsin Mill.

IT IMPROVES EVEN the BEST GRADE of PAPER

Whatever your product, if it is made on a Fourdrinier machine, its quality can be improved by the installation of a Voith High Pressure Stock Inlet.

Whether you are making book paper, bond paper, or some other paper, on a machine that travels at high speed, medium speed or low speed, the Voith Inlet will give you a better product.

It makes possible a sheet of uniform thickness by minute adjustments easily made across the entire width of the machine. On the installation pictured above, this variation in caliper was cut 75%.

It gives the entire surface of the wire for formation purposes, eliminating aprons and slices, thus improving the formation, and it does away with lumps and foam spots.

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VALLEY IRON WORKS CO.

APPLETON, WISCONSIN

New York Office: 350 Madison Avenue

New York Trade Jottings

Dr. Hugh Baker, executive secretary of the American Paper and Pulp Association, will go to Erie, Pa., the last of this week to attend a meeting of the agents of the Hammermill Paper Company.

* * *

At the dinner of the Salesmen's Association to be held at Hotel Belmont on Tuesday, September 9, the members will listen to an illustrated address by E. O. Merchant, statistician of the Mead Pulp and Paper Company.

* * *

R. S. Kellogg, secretary of the News Print Service Bureau, will be away all next week attending the forestry meetings at Petersboro, N. H., and Petersham, Mass. He will avail himself of the occasion to enjoy a driving trip and will be accompanied by his family.

* * *

Emanuel M. Mendelson of Mendelson Bros. Paper Stock Company and vice president and treasurer of the Waterway Products Company, Chicago, and his brother Samuel Mendelson of the Missouri Paper Stock Company, St. Louis, Mo., were among the trade visitors in New York last week.

* * *

The questionnaire which is being sent out by the Joint Vocational Education Committee, 342 Madison avenue, to the paper industry and which was noted in last week's PAPER TRADE JOURNAL, is taking hold. Many answers have already been received, and one mill alone has asked for 200 copies of text books.

* * *

The Joint Committee of the American Wood Pulp Importers, the Technical Association of the Pulp and Paper Industry and the American Paper and Pulp Association has approved the application of G. P. Genberg of the Fraser Companies, Ltd., Edmundson, N. B., as chemist for sampling and testing wood pulp.

* * *

The Texas Gulf Sulphur Company has declared a quarterly dividend of $1.75 on the capital stock, placing the issue on a $7 annual basis. Previously the company had been paying $1.50 a share quarterly, which, with extra dividends, brought the payments to $7 per annum. The dividend is payable September 15 to stock of record September 2.

* * *

A. Aaronson resigned on August 16 as secretary of the J. J. Murphy Company to organize the firm of Aaronson Brothers, 10 Greene street. Associated with him in the enterprise is his brother, Ira N. Aaronson, who was formerly a salesman with the J. J. Murphy Paper Company. They maintain a store and basement at 110 Greene street, and will conduct a general jobbing business.

* * *

J. C. Hoffman, Inc., manufacturers of Paper Tubes and Paper Tube Products, located at 2585-2597 Third avenue, have, due to increased business which necessitates the utilization for manufacturing purposes of their present main building, purchased the five-story and basement warehouse at 213-217 East 135th street, which is in close proximity to all Bronx railroad deliveries. After extensive alterations the building will prove ideal for their storage requirements of both raw material and manufactured products.

Bear River Pulp Co. Improvements

[FROM OUR REGULAR CORRESPONDENT.]

MONTREAL, Que., August 25, 1924.—The Bear River Pulp Company, Ltd., will spend in the neighborhood of $300,000 on the rehabilitation of Clark Bros.' mill at Bear River, N. S. Several new machines are being installed. It is expected that the alterations will be completed and the mill in operation by October first.

Conditions Improve in Hudson Valley

[FROM OUR REGULAR CORRESPONDENT.]

GLENS FALLS, N. Y., August 25.—An improvement in paper trade conditions is reflected by an increase in operations of paper mills in the Upper Hudson Valley. At the Fort Edward plant of the International Paper Company one machine (No. 6) has been started and a number of other departments of the mill, which had been idle for a period, have been opened to handle the output of this machine. With conditions improving steadily it is said that the greater part of the machines in the Fort Edward plant will be in operation in the near future.

At the Corinth mill of the International company, all ten machines are again in operation after a 32-hour rest period. Until last week the Corinth mill had been working five days a week. The machines were shut down Saturday morning and were restarted on Monday. With the new time schedule which has just become effective at the Corinth mill, the operation of machines continues until Sunday morning at 7 o'clock instead of Saturday as formerly. This will give employees six days a week.

The Hudson River water supply is holding out well this summer with frequent rains swelling the supply and there are no present indications of a shortage similar to that of last season when paper mills of this region were considerably handicapped by low water. At the local mill of the International Paper Company late last week it was stated that 1,300 cubic feet of water was flowing per second in the river. Improved conditions locally are attributed to the fact that the water is being held back by the enlarged dam at the foot of Glen street.

The Ticonderoga mill of the International Paper Company is in no way responsible for the lowering or raising of the waters of Lake George, according to a report made last week to the Lake George Association by F. B. Richards, of this city, chairman of the water committee. It was pointed out in the report that with the large volume of water in the lake, the Ticonderoga mill could draw it down less than 2⅛ inches in a week even though no water was running into the lake.

K. V. P. Co. to Make Moth Proof Papers

[FROM OUR REGULAR CORRESPONDENT]

KALAMAZOO, Mich., August 25, 1924.—Production of a moth-proof paper by the Kalamazoo Vegetable Parchment Company is announced as a step in the near future, by Jacob Kindleberger, president of that company. Due to certain unpleasant features in its manufacture, a separate department will be required. Mr. Kindleberger says the new product will be put up in small rolls and marketed like the shelf and lining paper.

Ezra Levin, head of the K. V. P. experimental department, and a member of the technical staff, has established a test station in the old machine shop. It is known as the "Buggery," and in it special methods for the protection of food products will be worked out. If bugs do not exist, it will be up to Mr. Levin and his staff to produce them. Various types of food stuffs will be wrapped in various types of papers and the package that best withstands the ravages of the bugs will be recommended to the manufacturers of these food products.

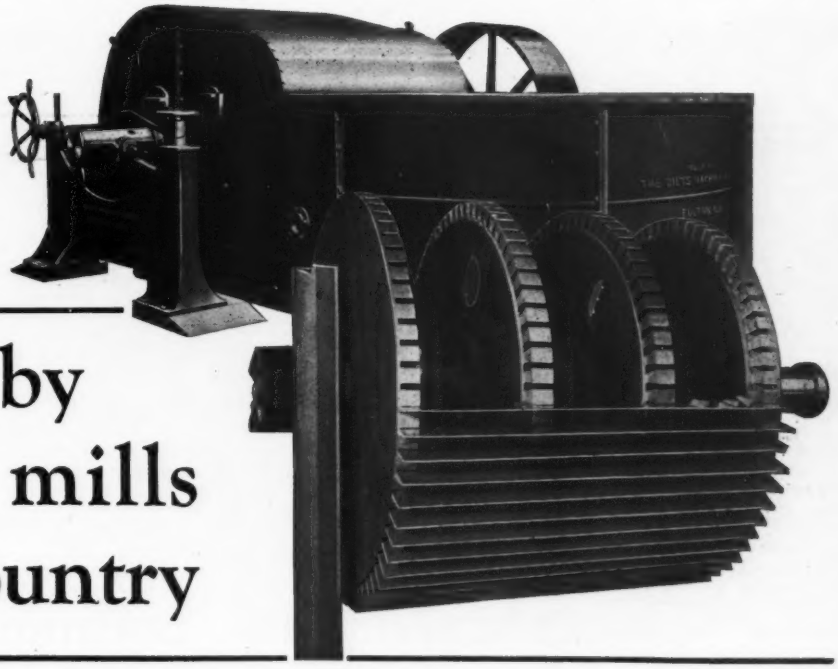
Newfoundland to Have New Paper Mill

[FROM OUR REGULAR CORRESPONDENT]

ST. JOHNS, N. F., August 25, 1924.—Newfoundland sees in its paper mill industry a chance to solve the unemployment problem, according to the speech of the Governor General, Sir William Allardyce, at the proroguing of the Legislature this afternoon. Among the bills passed at the session was one providing for the establishment of a third paper mill in the Gander Valley in the northeast portion of the island with a capacity of 300 tons of news print daily.

Dilts-

"Your Paper is made in the beaters"



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MACHINE WORKS, Inc. FULTON, N.Y.

EXPORT OFFICE ~15 PARK ROW~ NEW YORK CITY

PAPER AND PAPER STOCKS IMPORTS AND EXPORTS OF THE UNITED STATES

For the Month Ending June 30, 1924, and for the Twelve Months Ended June 30, 1924, as Compared with Corresponding Months of Previous Year

IMPORTS—PAPER.

Paper and Manufactures of	June 1923 Quantity	June 1923 Value	June 1924 Quantity	June 1924 Value	Twelve Months Ending June 30 1923 Quantity	Twelve Months Ending June 30 1923 Value	Twelve Months Ending June 30 1924 Quantity	Twelve Months Ending June 30 1924 Value
Paper, except printed matter (total)	.....	$9,712,445	.....	$10,165,758	.....	$102,910,603	.....	$118,793,183
Printing paper—								
Standard news print.....lbs..Free	211,059,152	8,090,355	233,093,244	8,761,596	2,369,370,366	86,311,528	2,694,286,827	101,188,493
Imported from—								
Finland.....lbs.	9,036,180	305,428	6,395,442	200,348	76,129,431	2,394,494	72,201,093	2,330,281
Germany.....lbs.	6,143,198	205,637	6,938,684	189,214	81,338,316	2,614,649	111,224,317	3,533,000
Netherlands.....lbs.	.....	.....	547,340	17,001	9,264,753	317,213	1,313,929	41,692
Norway.....lbs.	3,674,736	128,684	1,508,514	45,105	56,883,148	1,873,415	39,204,904	1,349,253
Sweden.....lbs.	4,168,594	142,101	8,032,130	248,001	116,450,266	3,678,994	108,108,904	3,466,761
Canada.....lbs.	186,722,728	7,268,093	209,289,215	8,490,297	2,019,653,306	75,110,409	2,345,606,820	90,259,245
Other countries.....lbs.	1,313,716	40,412	381,919	12,630	9,651,146	322,354	6,626,860	208,261
All other, n. e. s.....lbs..dut.	1,783,349	84,523	1,220,344	48,935	12,462,250	662,216	22,254,234	976,245
Grease-proof and water-proof papers.lbs..dut.	468,291	37,139	59,150	13,078	[2]2,215,289	[2]195,922	2,485,420	245,978
Wrapping paper.....lbs..dut.	6,518,186	305,905	.....	.....	85,650,843	3,806,547	[3]44,709,325	[3]1,939,824
Kraft wrapping paper.....lbs..dut.	.....	.....	247	13,065	.....	.....	[4]16,954,619	[4]633,989
All other wrapping paper.....lbs..dut.	.....	.....	2,984,463	117,146	.....	.....	[4]13,255,026	[4]508,601
Writing, drawing, bond, etc.....lbs..dut.	405,294	62,605	176,654	45,056	[2]2,631,643	[2]542,668	2,659,649	524,556
Surface coated.....lbs..dut.	78,426	30,954	100,163	31,287	1,002,122	294,108	1,450,655	342,210
Tissue papers.....lbs..dut.	125,920	79,528	183,952	84,069	[2]1,504,408	[2]695,252	2,089,528	888,083
Paper boards—								
Pulp boards in rolls.....lbs..dut.	7,756,174	220,795	7,698,789	214,262	67,148,750	1,792,851	82,681,943	2,331,133
Other paper boards, n. e. s. ....lbs..dut.	1,657,561	43,797	3,043,666	68,259	[2]18,797,362	[2]526,367	28,753,231	762,946
Cigarette paper, cigarette books and covers.....lbs..dut.	1,179,608	353,219	892,642	233,494	.....	3,769,560	11,137,535	2,922,733
Photographic paper.....lbs..dut.	116,024	24,883	369,180	76,334	2,335,888	487,002	3,051,750	630,190
Hanging paper.....lbs..dut.	567,084	30,309	330,640	25,493	.....	560,080	13,575,518	638,784
Paper boxes.....lbs..dut.	.....	.....	166,647	87,134	.....	.....	[4]771,628	[4]472,502
Decalcomania, not printed.....lbs..free	22,279	6,068	51,600	11,208	.....	102,127	444,061	109,450
All other.....dut.	.....	342,374	.....	292,465	.....	3,164,375	.....	3,677,466
Books and other printed matter (total).....dut.	.....	642,483	.....	803,850	.....	7,928,860	.....	9,089,556
Books and other printed matter.....{free	.....	.....	.....	.....	.....	[3]881,331	.....	.....
Books and other printed matter.....{dut.	.....	.....	.....	.....	.....	[3]578,820	.....	.....
Books and pamphlets in foreign languages.....lbs..free	110,575	57,624	231,101	148,059	[2]1,161,843	[2]768,312	2,098,880	1,177,670
Books, maps, music, etc., 20 years old.....lbs..free	26,487	43,112	39,122	113,557	[2]268,717	[2]1,287,353	365,079	1,570,615
Other books, etc.....lbs..free	179,063	115,206	220,402	137,602	[2]1,568,353	[2]1,177,999	2,245,708	1,480,224
Books, pamphlets, and music, n. e. s.lbs..dut.	295,138	225,559	261,051	202,731	[2]1,953,966	[2]1,667,449	3,503,082	2,431,106
Maps, charts and other printed matter, n. e. s.....dut.	.....	74,617	.....	81,621	.....	[3]480,059	.....	823,360
Lithographically printed matter, n. e. s.....lbs..dut.	.....	.....	.....	.....	[1]572,749	[1]179,601	.....	.....
Cigar bands, labels and flaps...lbs..dut.	54,658	25,800	12,137	18,124	[2]157,113	[2]138,086	205,506	198,773
Decalcomanias.....lbs..dut.	16,547	22,532	20,591	31,024	[2]119,383	[2]163,698	244,960	348,866
All other.....lbs..dut.	.....	78,033	.....	71,132	.....	[2]606,152	.....	1,058,942
CRUDE PAPER STOCK.								
Rags for paper stock.....lbs..free	30,450,715	559,843	32,455,652	750,594	379,608,958	6,499,595	420,625,107	8,336,601
Waste, bagging, waste paper, etc..lbs..free	9,675,091	133,410	8,509,838	112,640	[2]126,466,599	[2]1,682,868	101,143,437	1,213,736
Old rope and all other paper stock.lbs..free	8,621,268	422,798	7,678,512	421,549	141,104,795	5,078,874	96,727,558	4,932,413
WOOD PULP.								
Mechanically ground.....tons..free	16,791	568,534	11,768	382,707	243,870	7,951,400	233,084	8,046,362
Chemical wood pulp—								
Sulphite, unbleached.....tons..free	43,840	2,772,301	43,609	2,306,450	499,617	26,296,853	464,162	26,806,620
Sulphite, bleached.....tons..free	24,084	2,172,109	17,844	1,468,983	253,936	22,002,582	238,785	20,079,990
Total sulphite.....tons	67,924	4,944,410	61,453	3,775,433	753,553	48,299,435	702,947	46,886,610
Imported from—								
Finland.....tons	7,936	603,139	4,075	202,445	62,975	3,508,904	54,666	3,180,371
Norway.....tons	4,344	354,885	1,101	71,628	75,314	5,497,294	52,394	4,232,634
Sweden.....tons	20,104	1,465,073	20,225	1,159,598	261,803	14,811,180	213,161	13,438,502
Canada.....tons	25,596	1,937,255	28,999	1,884,206	305,552	21,535,714	306,037	21,203,249
Other countries.....tons	9,944	644,058	7,053	457,556	44,909	2,946,343	76,689	4,831,854
Sulphate pulp, unbleached (kraft pulp).....tons..free	21,857	1,457,006	16,534	956,855	269,493	16,234,052	244,386	15,291,687
Imported from—								
Finland.....tons	1,138	67,609	999	46,513	18,720	1,001,599	10,243	564,842
Norway.....tons	147	7,659	150	9,912	8,656	452,157	10,186	562,258
Sweden.....tons	9,272	589,472	6,578	339,273	103,044	5,518,905	88,214	5,229,663
Canada.....tons	11,300	792,266	8,788	560,135	138,283	9,217,780	133,448	8,791,823
Other countries.....tons	.....	.....	19	1,022	760	43,611	2,295	143,101
Sulphate pulp, bleached.....tons..free	181	11,371	182	12,805	26,376	1,638,174	7,245	496,131
Other pulp.....tons..free	.....	.....	247	13,065	[2]1,957	[2]103,615	6,787	411,484
CHEMICALS AND OTHER PAPER MAKERS' MATERIALS.								
Colors, dyes, stains, color acids, and color bases, n. e. s.....lbs..dut.	211,027	276,620	253,973	286,832	[2]2,552,038	[2]3,427,674	3,084,989	4,002,708
Imported from—								
Germany.....lbs.	67,772	74,241	131,019	151,733	.....	.....	1,524,362	1,819,049
Switzerland.....lbs.	80,744	129,485	84,341	85,515	.....	.....	869,433	1,257,305
United Kingdom.....lbs.	18,137	12,087	3,973	3,815	.....	.....	97,699	98,803
Other countries.....lbs.	44,374	60,807	34,640	45,769	.....	.....	593,495	827,551
Casein or lactarene.....{lbs..free	.....	.....	.....	.....	[3]3,288,534	[3]346,431	.....	.....
Casein or lactarene.....{lbs..dut.	2,095,583	370,303	2,509,768	183,964	[2]22,805,424	[3]3,789,053	17,441,211	1,947,906
Kaolin, china, and paper clay....tons..dut.	30,852	330,737	30,184	306,544	325,832	3,539,317	289,359	3,014,113

[1]July 1 to Sept. 21, 1922. [2]Beginning Sept. 22, 1922. (*Continued on page 42*) [3]July 1 to Dec. 31, 1923. [4]Beginning Jan. 1, 1924.

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On Nov. 4th, 1920, 26,000,000 people voted, BUT 27,000,000 did not. VOTE NOV. 4th. VOTE AS YOU PLEASE, but VOTE.

PAPER AND PAPER STOCKS IMPORTS AND EXPORTS OF THE UNITED STATES

(*Continued from page* 40)

EXPORTS—PAPER

Paper and Manufactures of	June 1923 Quantity	June 1923 Value	June 1924 Quantity	June 1924 Value	Twelve Months Ending June 30 1923 Quantity	Twelve Months Ending June 30 1923 Value	Twelve Months Ending June 30 1924 Quantity	Twelve Months Ending June 30 1924 Value
Paper, except printed matter (total)	.....	$2,433,613	.....	$2,093,147	.....	$25,496,326	.....	$24,903,953
Printing Paper—								
News Print Paper.....lbs.	3,297,869	166,409	3,779,265	198,225	39,286,269	1,900,128	33,608,110	1,694,321
Exported to—								
Canada	50,538	5,894	210,808	13,917	1,611,361	120,941	1,327,037	104,593
Central America	147,799	7,087	52,121	3,062	1,555,728	83,476	962,317	48,782
Mexico	234,212	15,419	133,444	5,963	1,366,117	91,943	1,905,764	98,595
Cuba	1,869,189	84,345	1,904,111	82,902	21,956,544	963,784	19,781,239	900,164
South America	166,880	7,883	228,004	12,122	5,687,570	266,567	1,865,630	101,951
Japan	269,671	18,866	30,073	2,030	958,503	65,813	1,293,383	84,604
Philippine Islands	522,387	24,320	513,153	24,356	4,807,986	231,334	4,107,362	198,969
Other countries	37,193	2,595	707,551	53,873	1,342,460	76,270	2,365,378	156,663
Book paper, not coated.....lbs.	2,871,702	312,010	1,306,241	160,462	30,003,088	3,099,067	20,326,304	2,347,378
Exported to—								
United Kingdom	65,231	15,297	57,925	13,694	613,032	131,434	762,657	151,205
Canada	179,172	24,514	121,121	16,767	2,621,637	320,410	1,946,899	252,362
Central America	154,585	13,854	27,482	3,041	669,576	72,751	778,916	91,524
Mexico	112,515	15,629	209,524	27,050	2,662,772	260,400	1,593,836	185,201
Cuba	897,666	87,911	270,248	33,217	7,901,339	795,010	4,301,861	482,110
Argentina	91,620	11,606	59,682	5,714	1,754,255	182,975	852,712	101,128
Brazil	7,741	1,093	33,194	4,359	1,299,325	141,406	546,658	65,749
Venezuela	70,409	13,126	82,548	10,183	581,770	70,384	583,056	63,349
Other South America	196,303	20,997	56,811	7,213	1,937,959	193,424	1,053,959	128,965
British India	2,995	352	4,249	756	229,820	25,831	109,612	14,066
China	331,653	33,155	229,194	19,845	1,571,325	155,322	2,568,830	249,618
Japan	354,033	33,513	29,369	4,511	2,601,521	214,351	1,394,788	143,184
Philippine Islands	252,561	24,516	80,349	8,264	3,671,926	327,542	2,046,708	191,001
Australia	115,134	11,138	11,693	1,658	911,775	100,249	754,135	97,641
Other countries	40,084	5,309	32,852	4,190	975,056	107,578	1,031,677	130,275
Cover paper.....lbs.	117,349	21,736	50,615	10,167	1,520,266	227,504	965,760	173,983
Greaseproof and waterproof paper.....lbs.	138,329	21,262	155,172	16,399	1,365,182	182,340	1,733,827	217,905
Wrapping paper—								
Kraft paper.....lbs.	92,605	8,543	61,642	4,871	698,785	57,697	839,492	88,155
Other wrapping.....lbs.	2,631,520	215,764	1,751,060	160,187	28,492,753	2,130,667	24,012,795	2,020,917
Writing paper, except papeteries.....lbs.	547,780	100,318	504,726	71,403	7,186,786	1,092,869	5,370,092	921,867
Surface-coated paper.....lbs.	293,804	58,880	239,743	34,937	3,935,515	584,878	3,398,050	526,180
Tissue and crêpe paper.....lbs.	211,759	60,336	206,995	57,252	3,081,294	794,549	3,168,669	818,958
Toilet paper.....lbs.	289,695	40,172	358,135	37,012	4,935,657	574,058	4,332,721	487,128
Paper towels and napkins.....lbs.	107,219	15,854	157,100	22,527	1,050,206	174,984	1,314,374	222,329
Bristols and bristol board.....lbs.	81,080	11,501	95,217	11,745	1,726,150	163,716	1,354,766	127,132
Paper board and straw board.....lbs.	6,619,421	309,622	6,328,615	226,708	51,734,730	2,445,142	66,714,960	2,861,319
Sheathing and building paper.....lbs.	417,177	25,399	116,828	11,495	5,397,927	202,740	4,225,590	200,148
Wall board of paper or pulp.....sq. ft.	1,228,727	44,295	1,648,972	51,505	13,265,833	468,198	19,716,398	676,402
Blotting paper.....lbs.	.....	.....	128,214	16,142	.....	.....	[1]1,183,153	[1]146,161
Filing folders, index cards and other office forms.....lbs.	.....	.....	39,744	17,027	.....	.....	[2]231,528	[2]86,586
Cigarette paper and books.....lbs.	21,836	5,333	90,520	30,969	608,250	212,902	943,946	326,243
Photographic paper.....lbs.	121,262	112,311	153,240	163,797	1,380,516	1,461,220	1,535,215	1,498,878
Paper hangings (wall paper).....yard	1,046,499	30,642	806,088	22,261	19,907,906	497,566	24,214,626	619,357
Paper bags.....lbs.	831,411	75,700	804,121	74,257	10,382,702	945,026	8,885,157	923,186
Boxes and cartons.....lbs.	699,064	81,570	961,010	78,454	9,972,890	950,145	11,912,116	1,100,204
Carbon paper.....lbs.	87,804	67,563	79,997	65,631	755,091	593,117	902,840	700,743
Envelopes.....lbs.	325,003	58,839	192,090	40,797	2,661,192	517,326	2,619,396	528,231
Playing cards.....pack	972,132	139,475	418,282	48,155	9,719,754	1,152,153	7,075,872	798,361
Cash register and adding machine paper.lbs.	89,437	9,388	64,692	8,150	1,049,412	109,775	1,275,108	143,657
Papeteries (writing paper in boxes).....lbs.	40,610	13,725	20,204	8,329	419,912	145,348	363,849	148,916
Other paper and paper products, n.e.s..lbs.	2,503,522	426,966	8,602,626	444,283	41,631,753	4,813,211	33,648,073	4,499,308
Books, maps, pictures, and other printed matter (total).....lbs.	4,298,235	1,413,808	3,986,904	1,476,312	47,039,820	17,349,644	52,832,241	18,841,752
Books and pamphlets.....lbs.	2,399,328	758,825	2,441,387	666,595	24,154,963	8,246,094	30,584,938	9,452,655
Maps and charts.....lbs.	14,074	17,273	12,617	12,898	184,407	176,261	158,900	167,528
Music in books or sheets.....lbs.	44,898	24,812	21,741	13,061	509,879	338,248	611,412	357,074
Souvenir post cards.....lbs.	26,669	11,121	32,391	17,076	394,078	179,976	531,515	214,354
Lithographically printed matter, except post cards and maps.....lbs.	170,084	120,044	175,156	182,447	1,939,756	1,506,699	2,134,410	1,638,080
Other printed matter.....lbs.	1,643,182	481,733	1,303,612	584,235	19,856,737	6,902,366	18,811,066	7,012,061

WOOD PULP AND PAPER STOCK

Sulphite wood pulp.....tons	1,038	64,142	1,776	110,279	13,662	801,466	16,852	986,183
Soda wood pulp.....tons	580	55,244	261	24,399	3,381	301,181	2,032	191,707
Other wood pulp.....tons	169	7,795	1,395	117,522	2,089	81,982	4,686	357,341
Rags, and other paper stock.....lbs.	10,332,695	174,450	8,637,683	141,907	76,459,963	1,455,156	127,534,923	2,121,720

PAPER AND PULP MILL MACHINERY

Paper and pulp mill machinery.....lbs.	607,805	147,194	591,009	131,985	12,468,119	1,991,852	9,067,208	1,893,575

[1]July 1 to Dec. 31. [2]Jan. 1 to June 30.

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Editorial

Vol. LXXIX New York, August 28, 1924 No. 9
HENRY J. BERGER, Editor

CANADIAN PREMIER INDUSTRY GROWS

Canada's premier industry made a gratifying showing during 1923, according to a preliminary report of the pulp and paper industry that has just been completed by the Forest Products Branch of the Dominion's Bureau of Statistics.

The report shows another step toward the complete recovery of the industry from the unsatisfactory conditions which prevailed during 1921. The industry increased steadily in importance from the establishment of the first paper mill in Canada in 1803 up to 1920 when the value of production reached its maximum. This was followed by a decided falling off in 1921, but the figures for 1922 and 1923 show satisfactory increases.

If the net value of production for the entire industry be considered as the sum of the value of pulpwood exported, pulp made for export and paper manufactured, the total for 1923 will be $183,226,218, as compared to $152,209,711 for 1922, $157,426,587 for 1911 and $230,199,717 for 1920.

There were 110 mills in operation in 1923, as compared to 104 in 1922 and 100 in 1921. Of these mills, 43 manufactured pulp only, 32 manufactured both pulp and paper and 35 manufactured paper only. The 75 mills manufacturing pulp produced 2,469,305 tons of this material, valued at $98,886,110 in 1923, as compared to 2,150,251 tons at $84,947,598 in 1922, representing an increase of 14.8 per cent in quantity. Of this total, 1,400,454 tons, valued at $42,633,826, were made in the combined pulp and paper mills for their own use in the manufacture of paper, 217,427 tons, valued at $14,156,652, were sold to other paper mills in Canada, and 851,424 tons, valued at $42,059,632, were made for export.

The 67 mills manufacturing paper in 1923 produced 1,582,799 tons of paper, which with certain miscellaneous pulp products, were valued at $127,605,582, as compared to 1,366,815 tons in 1922, valued at $107,085,766, an increase of 15.8 per cent in quantity. Newsprint made up 78.4 per cent of the total paper production in 1923, amounting to 1,241,706 tons, valued at $92,482,843, as compared to 1,081,364 tons, valued at $75,971,327 in 1922, an increase of 14.8 per cent.

The total number of employees on salaries and wages in 1923 in this industry was 29,179, and the total payroll was $38,305,157, as compared to 25,830 employees in 1922 with a payroll of $32,918,955.

The total capital invested in the industry in 1923 was $417,611,678, an increase of $36,605,334, or 9.6 per cent of the capital of 1922.

The apparent total production of pulpwood in 1923 was 4,648,663 cords, valued at $57,029,212, of which 70.2 per cent, or 3,264,433 cords, valued at $43,504,208, were manufactured into pulp in Canadian pulp mills and 29.8 per cent, or 1,284,230 cords, valued at $13,525,004, were exported to the United States in the raw or unmanufactured state.

These figures show an increase in the propurtion of pulpwood exported from 25.8 per cent of the total in 1922 to 29.8 per cent in 1923. Domestic consumption has increased by 12 per cent, while exportation has increased by 36.9 per cent. No pulpwood has been imported into Canada for many years.

The total value of all materials used in pulp making, including pulpwood in 1923 was $51,139,042. The total value of the raw materials used in papermaking, including pulp, was $98,886,110.

The exports of wood pulp from Canada during the calendar year 1923 amounted to 873,359 tons, valued at $47,027,496, as compared to 818,257 tons, valued at $41,037,849 in 1922, an increase of about 7 per cent. During the same period the imports amounted to only 17,228 tons, valued at $947,225, a slight decrease from the imports for 1922.

The exports of paper and paper goods in 1923 were valued at $93,770,957, as compared to $74,825,893 in 1922, an increase of over 25 per cent. During the same period the importation of paper and paper goods were valued at $9,112,896, an increase of about 10 per cent over 1922. The exports were made up chiefly of news print paper, of which 1,137,962 tons, valued at $85,611,258, were exported in 1923. This exportation of news print exceeded that of 1922 by over 18 per cent.

The total favorable trade balance resulting from the activities of the pulp and paper industry in Canada during 1923 amounted to $144,263,336, being made up of the value of pulpwood exported, of $13,525,004, the difference between pulp exports and imports of $46,080,271, and the difference between paper exports and imports of $84,658,061.

INTEREST IN STANDARDIZATION

There now exists the most widespread interest and activity in industrial standardization that has ever been shown, according to the new Year Book of the American Engineering Standards Committee.

The work of the committee is indicative of the growth of the movement as a whole. One hundred and fifty-two projects have been completed, or are under way, and in these various projects two hundred and thirty-five national organizations, technical, industrial, governmental, are officially cooperating through accredited representatives. The number of the individuals serving under various sectional committees of the different projects is nearly 1,100.

Cooperation in joint activities between Mr. Hoover's Division of Simplified Practice and the American Engineering Standards Committee has steadily increased. In general the work of the committee is concentrated upon standardization projects which involve technical considerations, while the Division of Simplified Practice concentrates upon such eliminations as it is possible to carry out from a consideration of statistical production data alone, or as stated in the book on trade association activities issued by the Department of Commerce, "the layman can proceed successfully with a simplification program, while it would be impossible for him to consider seriously standardization problems by himself."

In order to meet the demands made upon it by industry, and to supply the needs of the various working technical standardization committees, the American Engineering Standards Committee has greatly broadened its information services, and has added an Engineer Translator to its staff for this purpose. In this way, complete information is made available to sustaining members, trade

and technical associations and other inquirers on standardization activities in foreign countries, as well as in the United States.

The information service is becoming of increasing importance in connection with foreign trade. Exporters are frequently asked to bid on goods to comply with foreign specifications, or in accordance with an unfamiliar trade name or designation, information regarding which they do not have available. Through its information service, the A. E. S. C. has on many occasions supplied copies of standards, or details of information based on a study of foreign standards, in accordance with which bids could be prepared intelligently, thus enabling the American firm to submit its bid by cable, when without such service it would have been unable to act in time.

One of the most striking develpments of the standardization movement is the increasingly important role which trade associations are playing in it. More than 140 national trade associations are officially participating in standardization projects under the auspices of the American Engineering Standards Committee. That standardization is a legitimate and constructive activity for associations is everywhere recognized, and explicitly so by a recent decree of the United States District Court at Columbus, Ohio.

Standardization, being essentially a cooperative undertaking, must necessarily be predicated upon some form of organization. To carry out a piece of standardization work throughout an industry, it is practically essential that there be some form of organization covering this particular industry, even though it be a loose-knit one. More and more trade associations, no matter for what purpose they may have originally been organized, are going into technical work, and it is natural, if not inevitable, that both trade and technical associations should eventually concern themselves to an increasing extent with standardization activities. This tendency is becoming more marked on every hand.

S. B. Monroe Predicts Steady Business in Fall

[FROM OUR REGULAR CORRESPONDENT.]

KALAMAZOO, Mich., August 25, 1924.—A good steady run of business for the paper industry during the fall months is predicted by S. B. Monroe, who is heavily interested in the Allied Paper Mills, Hawthorne Paper Company and MacSimbar Paper Company in the Kalamazoo valley and the Provencial Paper Mills, Ltd., of Canada.

All the concerns with which Mr. Monroe is connected are operating steadily and on much improved schedules as compared with the past twelve months. There is no indication of a let-down, and any change in the future is likely to be an improvement. He has just returned from Port Arthur, Canada, where he went to inspect the new mill of the Provencial Paper Mills, Ltd.

F. W. Sutherland, secretary of the Sutherland Paper Company, reports a splendid run of business for his concern. It is running full capacity and having difficulty in keeping up with orders.

"A recent business trip took me to Monroe and other points where board mills are in evidence," said Mr. Sutherland. "Everywhere I went I found conditions good and a fine spirit of optimism prevailing."

Changes in Berkshire Hills Paper Co.

[FROM OUR REGULAR CORRESPONDENT]

ADAMS, Mass., August 23, 1924.—Henry L. Harrington, treasurer of the Berkshire Hills Paper Company, has purchased the interest in this company held by F. R. Shaw, former president. The new officers of the company are Henry L. Harrington, president and treasurer; Noble B. Turner of Housatonic, Mass., vice-president; Harry E. Davis of Adams, secretary.

Power Show to Be Held December 1-6

The Third National Exposition of Power and Mechanical Engineering will be held in the Grand Central Palace, New York, December 1 through 6, 1924, and will parallel the annual meetings of the American Society of Mechanical Engineers and the American Society of Refrigerating Engineers.

The facts that at the present time the coming show has twice the requests for space that the previous show had at a corresponding time last year, that the attendance last year increased thirty per cent over that of the year before and that engineers and manufacturers all over the country are now making their plans to be present at the coming event, are definite proofs that its success is assured.

The Power Show is looked upon as the great opportunity for comparing competitive products, for permitting actual contact with new appliances and the organizations that supply them, and as a place where buyers may receive expert advice from many manufacturing concerns in regard to money-saving equipment. The constant struggle for improvement furnished the necessary stimulus to commerce and industry, and an exposition which reveals new ideas, their uses and limitations is an important help in the struggle.

The managers of the exposition are Fred W. Payne and Charles F. Roth. whose headquarters are in the Grand Central Palace, New York, N. Y.

Great Lakes Paper Co. Activities

J. H. Black, of Toronto, president of the Great Lakes Paper Company, recently paid a visit to the plant at Fort William. The new ground wood pulp mill is now in operation and turning out one hundred and twenty-five tons daily, a large portion of which is going at present to the Fort Frances Pulp and Paper Company at Fort Frances, for the making of news print as the pulp mill of the latter concern has been handicapped for some time in production owing to low water conditions. It is probable that excavation for the new, news print mill of the Great Lakes Company will be started this fall and the foundation laid for the accommodation of two machines.

The annual picnic of the employees of the Lincoln Mills, Merritton, Ont., was held recently at Grimsby Beach and was largely attended. A pleasant time was spent in sports and games.

Port Alfred Pulp Co. Financing

MONTREAL, Que., August 25, 1924.—J. H. Gundy, of Wood, Gundy & Co., who has spent a good deal of time in Montreal lately in connection with the reorganization and purchase of the Bay Sulphite plant by the Port Alfred Pulp and Paper Company, is now on a tour of inspection of the company's plant. The Port Alfred Company is capitalized at 630,000 shares of common stock of no par value and, as stated recently, will have the same funded debt as the Bay Sulphite Company, of $4,000,000. In addition, the company is authorized to issue $3,000,000 of debentures, of which $1,500,000 will be presently issued to provide working capital.

Provisions have been made for the installation of news print machines when the proper time comes. It has been reported locally that the company's intention is to enter into the manufacture of news print very soon, with about 100 tons per day to start with.

Manning Paper Co. Improvements

[FROM OUR REGULAR CORRESPONDENT.]

TROY, N. Y., August 25, 1924.—The John A. Manning Paper Company is making some improvements to its plant on Cypress street. A new steel smokestack 90 feet in height is being erected by the West Side Structural Company. The work will be delayed somewhat by the accident occuring a few days ago when the cable supporting the stack, which was being placed in position, snapped allowing the huge metal cylinder weighing several tons to crash to the ground.

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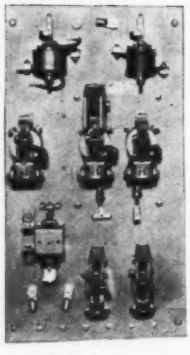

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Conducted by W.G. MacNAUGHTON, Secretary

KEEPING QUALITIES OF PAPER SIZED WITH RUBBER LATEX*

By J. Beckering-Vinckers

[About a year ago, Shaw and Carson of the Bureau of Standards published an article in the Paper Trade Journal, in which they showed that paper, sized with 3 per cent rubber latex, gave a steadily decreasing amount of chloroform extract (rubber), which they ascribed to the oxidation of the rubber. This paper was the subject of considerable criticism, especially by Kaye. The present paper is interesting in that it fully confirms the conclusions of Shaw and Carson and extends the work one step, in that it is shown that the mechanical properties, which are at first increased by the addition of the latex, likewise gradually fall off with time.—Translator.]

In the "Mitteilungen des Reichsfaserforschungsinstituts" No. 10 (Nov. 21, 1923) (which also appeared in Der Papierfabrikant 22, No. 13, 129-132) there were reported results of a preliminary study on the keeping qualities of paper sized with rubber latex. This study was prompted by the paper of Shaw and Carson (India Rubber World 68, 561 (1923); Paper Trade J. 76, No. 25, 47-49 (June 21, 1923). These authors found that paper, sized with rubber latex and exposed to the action of the atmosphere of the laboratory (that is, not only to the air, but also to light), very soon showed a noticeable decrease in its rubber content and ascribed this result to an oxidation of the rubber. The same results were obtained with paper which was kept in a drawer (without free access of air and in the absence of direct sunlight).

Our preliminary results indicated, however, that after four weeks there was no noticeable oxidation and, likewise, no change in the mechanical properties of the paper. In this connection it should be noted that, in these experiments, the paper was kept in a folder. Since this paper showed a considerable increase in many of its mechanical properties, it was desirable to extend the investigation over a longer period of time.

The study was made with the cooperation of the Reichskautschukforschungsinstitut in Delft, which carried out the determinations of the rubber and resin content. The details of this study are to be found in an article by A. van Rossen, director of the Institute. In addition to the papers prepared by us, a number of commercial "latex papers" were investigated. It is remarkable that the rubber content of these papers is very small and that in some of the commercial samples no rubber could be detected.

Work of Shaw and Carson

Shaw and Carson used a paper prepared from sulphite and soda pulps. The pulp was treated in the hollander with 3 per cent rosin and 2 per cent rubber latex (based on the air-dry weight of the cellulose). The complete precipitation of this rosin-rubber sizing required 6 per cent alum. The paper was then exposed to the action of the atmosphere (room temperature) for 16 days, the rubber and resin content being determined daily. The rosin content was determined by extraction with acetone for 48 hours, the extract dried at 105° C. and the residue (resins) weighed; the resin content was calculated in percentage of the air-dry pulp. This so-called resin content thus consisted of:

(1) the rosin added to the beater;
(2) the natural resin content of the rubber latex added;
(3) the resin resulting from the oxidation of the rubber.

The rubber determination was made by extracting the paper freed from resins 48 hours with chloroform, drying the extract in vacuum at a temperature not exceeding 80° C. and weighing the residue (rubber).

The results of Shaw and Carson's determinations are shown in

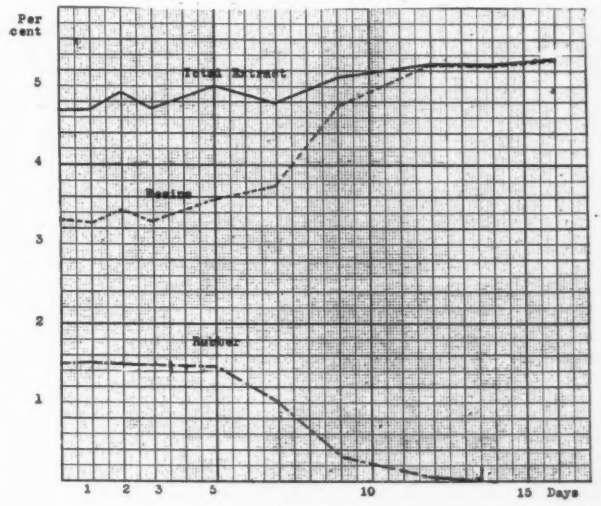


Fig. 1

* Translated from Der Papierfabrikant, 22, No. 20, 217-219 (May 18, 1924) by C. J. West.

Table 1 and Fig. 1. These figures indicate that, after a very short time, there is a decrease in the rubber content and an increase in the resin content, due to the oxidation of the rubber.

TABLE 1.

Time in days	Resin content	Rubber content	Total extract
0	3.25	1.45	4.69
1	3.17	1.50	4.67
2	3.42	1.50	4.92
3	3.15	1.53	4.68
5	3.58	1.44	5.01
7	3.75	1.04	4.78
9	4.75	0.36	5.10
12	5.33	0.02	5.35
14	5.28	0.01	5.29
16	5.35	0.07	5.42

A sample of the above paper was also kept in a drawer, thus excluding the action of light. After 14 days, they found a rubber content of 0.12 per cent.

A kraft paper and a rag paper were also prepared with rubber latex and likewise subjected to the action of the atmosphere. The results of analyses after 2 months and 6 months are shown in Table 2.

TABLE 2.

	Rubber content. Immediately	After 2 mos.	After 6 mos.
Kraft paper	0.66	0.12	0.00
Rag paper	0.59	0.43	0.24

Shaw and Carson conclude that oxidation of the rubber takes place in the paper and that the reaction is influenced by the nature of the cellulose.

H. P. Stevens (Bulletin Rubber Growers' Association, Oct., 1923; Paper Mill 47, No. 49, 4, Dec. 8, 1923) tested two different samples of hand made papers, which were prepared in the usual manner except that half of each lot contained latex. These papers were subjected to an ageing test, which consisted in placing them in an air-oven heated to 70° C. At equal intervals of time both samples were subjected to bursting strain tests. One of the latex papers showed an actual increase as compared with the control, the other sample showed a decrease, so that Stevens concluded that in some cases the effect of the addition of latex might be favorable, in others detrimental.

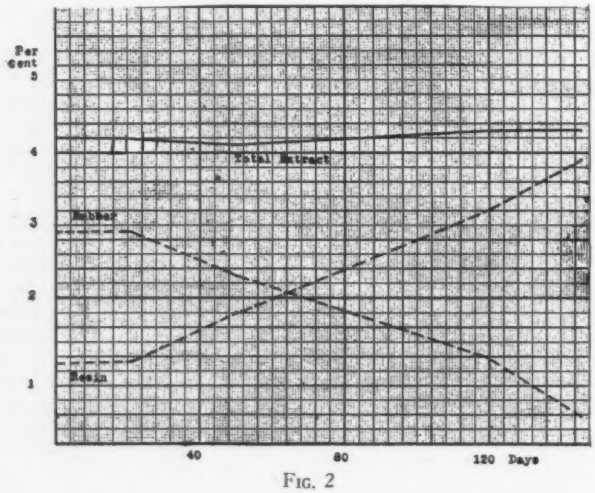


FIG. 2

The determination of the rubber content of the samples was not carried out in this investigation, so that no information is available as to the actual rubber content of the paper and its change during the experiment.

New Aging Tests

The paper used in the tests at the Reichsfaser-Institut of Delft was made of bleached sulphite from the mill of "Gelderland" in Nymwegen and was described in Der Papierfabrikant for Mar. 30, 1924. Three per cent rubber latex was added to the beater (calculated on the air-dried cellulose) and sufficient alum then added to precipitate all the rubber, care being taken to avoid an excess. The paper was formed by hand. At the same time control sheets were prepared without latex. In order to prepare sheets of nearly the same weight, they were formed from a relatively large amount of pulp, so that the formation of a single sheet caused no noticeable change in the concentration. The square meter weight of the paper varied between 58 and 65 grams. The paper was dried upon a copper cylinder heated by steam and was kept, during the experiment, in a brief case in a drawer. These papers were examined at definite intervals over a period of five months (July 27, 1923, to Dec. 18, 1923), the rubber and resin contents, as well as the mechanical properties, being determined.

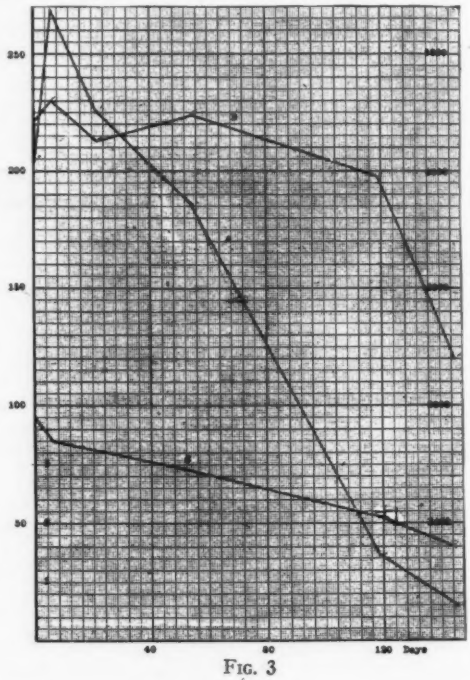


FIG. 3

Rubber and Resin Content

The paper was extracted with acetone for 16 hours to completely remove the rosin. Without drying, it was then extracted with benzene (benzol) by allowing the sample to stand overnight at room temperature and then boiling 2-3 hours under a reflux. The benzene extract was then concentrated, the residue weighed and the percentage of rubber calculated upon the weight of the original sample. These values are shown in Table 3 and are plotted in Fig. 2.

Mechanical Tests

Folding strength, tensile strength and stretch were determined in the usual manner and the breaking length calculated. The values for the folding strength and breaking length are the average of 25 individual determinations. The results are shown in Table 3 and in Fig. 3.

TABLE 3.

	Time in days	Paper sized with latex. Folding strength	Breaking length	Stretch per cent	Resin content	Rubber content
July 26	0	204	4,415	3.8	1.3	2.9
August. 1	6	268	4,600	3.4	1.3	2.9
August 17	22	226	4,258	2.9	1.3	2.9
September 18	54	186	4,490	2.9	1.8	2.3
November 21	118	36	3,950	2.1	3.1	1.2
December 18	145	15	2,400	1.6	3.9	0.4
		CONTROL				
July 26	0	258	4.880	3.7	...	...
November 21	118	155	4,690	2.6	...	...
December 18	145	...	4,380	2.3	...	...

Conclusions

The results of the extraction show that oxidation of the rubber occurs, and that the rubber content gradually decreases; at the same time the resin content increases in about the same ratio so that the change in the sum of the two substances is practically nil. The oxidation is first noticed after about three weeks and its progress was followed until there was practically no rubber in the paper.

The mechanical properties also show a gradual decrease, both in the latex paper as well as in the control, though the changes were greater in the former. In the course of 150 days, the folding strength of the latex paper had decreased 93 per cent, that of the control 53 per cent. The tensile strength of the latex paper likewise showed a marked decrease, falling 45 per cent in 150 days in the case of latex paper, 10 per cent in the control.

The paper sized with rubber latex developed a strong yellow tint, while the control showed no change in color; the color change in the case of the latex paper is probably related to the oxidation of the rubber.

These experiments show that the improved properties of the paper produced by the addition of latex are not retained after the disappearance of the rubber.

They also show that oxidation of the rubber occurs in the latex paper, which is probably accelerated by the finely divided condition of the product.

Finally the results confirm those of Shaw and Carson and extend their results in that they show that the improved mechanical properties of the papers sized with rubber latex are lost in a relatively short time.

DRYING OF PAPER

By William F. Goldsmith

Standard Paper Co., Kalamazoo, Mich.

The following general statements are the results of much investigation and many tests run at the Pejepscot plant of the Pejepscot Paper Company, and are offered to all those interested in the drying of paper in the hope that they may find something to aid in solving their drying problems.

Free and Slow Stock

The drying of paper is affected by free and slow stock only insofar as to what might be termed the preliminary drying, i. e., the wire, presses, etc. The freer the stock the easier water will drain from it. The drying of a sheet of news paper should start in the groundwood mill where the fibres are prepared just free enough to run properly and allow the maximum amount of water to drain from it. Suction boxes, couch, presses, suction rolls, and felts should be made to do their utmost so that as little work as possible is left for the driers. However, after the sheet comes in contact with the driers, the relative freeness or slowness is immaterial, since the proposition there is purely one of applying heat in the evaporation of water. The temperature of the face of a drier, the amount of moisture removed from the sheet by that drier, and the amount of steam circulating within the drier in unit time all bear a certain definite relation to each other. The "rate of drying" curve starts from a maximum at the wet end and should decrease steadily and uniformly to a minimum at the dry end. Knowing this, and provided it is impossible to tell whether a drier is working satisfactorily by feeling the syphon pipe and the surface of the roll, samples of paper taken from the drier in question and its neighbors will show by comparison the condition of that drier. Some judgment should be used in noting the exterior of the driers as to relative cleanliness.

Must Be Uniformly Thick and Smooth

It is absolutely essential that the driers be of uniform thickness and smooth, both inside and out. A rough interior means an unequal transfer of heat, and consequently uneven drying due to unequal thicknesses of the cylinder wall. A smooth, clean exterior is very necessary in order that the drier felt will hold the sheet uniformly against the drier, insuring an even contact, and preventing losses due to radiation. This was demonstrated very clearly at Pejepscot where the cleaning of two of the driers on the wet end of the machine more than doubled their drying rate. Particles of fuzz and paper which burn off and cling to the face of the drier roll have the same effect as insulating a steam pipe with asbestos. On some machines this fuzz will accumulate to a greater degree on the top rolls, and on others on the bottom rolls, this depending upon the rolls with which the wire side of the sheets come in contact. Rolls that are bored out evenly and polished on the outside give best results. It is interesting to note here the statement made in a recent issue of the Paper Trade Journal,[1] to the effect that drying in a vacuum will enable the manufacturers to cut the amount of drying surface in two. While this may be true, it may be said that this reduction is not entirely due to drying in a vacuum. Roughly, the amount of heat necessary to dry in a vacuum is about two-thirds of that normally required, so that perhaps one-half of the reduction may be credited to vacuum and the other one-half to surplus drying area already on the machine and doing very little work. In this connection, it may be said that practically every machine whose driers are kept clean inside and out, whose siphon pipes are kept within an inch of the bottom, and in which an even, steady circulation is maintained, will be capable of drying about one-fourth more paper than if the above conditions are not maintained. If speeding the machine is resorted to, in all cases, this must resolve itself into a question of economy and wear and tear upon the machine.

Broken Siphon Pipes

Broken siphon pipes, which in reality are not siphon pipes but vent pipes, allow water to accumulate in the driers until pressure is built up inside which is great enough to blow the whole mass out in a body. This produces jerky operation, imperfect circulation, and reacts unfavorably on the feed water heater, in that this body of water slams up against regulating valves, impairing their efficiency and also flooding the heater so that steam blows to the atmosphere. Again—it may flood the drainage pipes and retard the normal removal of condensate from other driers further along the line. This latter is an argument for ample size drainage lines to care for such contingencies. The above, however, are the least of the troubles for in the meantime the water in the driers is absorbing heat which it does surprisingly fast; the whole drier cools down appreciably and is of no use for drying of paper; the sheet tends to become slack at that point and may snap off. Finally, it takes considerably more power to move a drier half full of water than one which is empty, and this reacts, back upon the engines and boiler house. Upon entering the drier, steam bursts out much like water from a fountain, and since there is a difference in pressure between the supply and drainage lines, it will seek to pass out as quickly as possible. If the siphon pipe extends only a short way into the drier it is reasonable to assume that more or less steam depending on the position of the siphon pipe will pass out without reaching the further end of the drier. Hence the vent or siphon pipe should extend in sufficiently far to insure the steam reaching all points before it can escape. The extreme would be a perforated supply line pipe bolted to both heads of the drier. This allows the steam a chance to spend its heat without

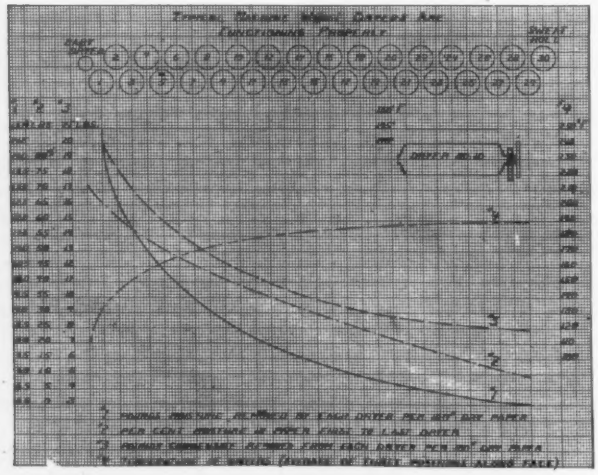
[1] "The Minton Vacuum Paper Drying Machine, April 12, 1924.

slacking up circulation so that it affects the rate of drying and tends to give in a large measure the result desired by the use of traps which are always either clogged up or in a state of repair. Most drainage lines will be found to have a pressure which is exerted backward through the drier upon the supply pressure. The ideal would be a drainage line having atmospheric pressure or less. An ample sized drainage line and a little care in eliminating bends in pipe, both supply and return lines, with a sufficient sized feed water heater to care for the condensate and steam as fast as removed will do much to decrease back pressure.

The following two sets of curves may be taken as illustrative of: first, a machine whose driers are dirty, pitted and having siphons anywhere from 3 to 8 inches from bottom, etc., and second, the same machine after these conditions are corrected.

Discussion of the Curves

While these curves are self explanatory, perhaps a short discussion will make certain points stand out clearer. In the case of the machine whose driers are not working to advantage, the high points on curves 1 and 3 on the wet end are all top driers. This was due in this particular case to the fact that the wire side of the sheet came in contact with the upper drier and fuzz burned off, insulating them effectively. Of course there was some fuzz on the bottom driers but not to anywhere near as great a degree as on the top ones. Also, and this applies to any machine, the top driers receive radiant heat from the bottom ones, and are further helped along because the sheet in passing from drier to drier comes in contact with the upper area of the top drier, in which zone there is nothing but steam. The sheet passing under the bottom drier, hits an area that is not as effective for drying due to the fact that there is water lying in the bottom through which the heat transfer cannot be as great. The high points along

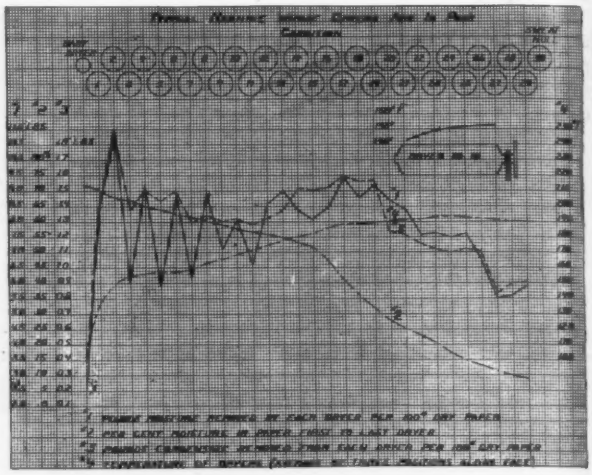


TYPICAL MACHINE, DRIERS FUNCTIONING PROPERLY

about midway down the machine on the bottom driers may be explained because the steam supply to the header entered at this point and doubtless more steam than could be used economically was forced in. The word economically is used because the percent moisture removed from the sheet by reason of this excess was not proportional to it, and also the amount of steam to water removed from these driers was higher than its neighbors. It will be noted that all four curves bear a definite relation to each other and that graduated temperature control from low or wet end to high or dry end (a much discussed question) will obtain whether special provision is made for this or not, since these curves are those of a single supply header system.

Actively Circulated Steam More Useful

Steam in active circulation is many times as useful for drying as steam which is not, and for this reason, steam traps as applied to paper machines have a very unfavorable action. If they are designed correctly, they do exactly what they are supposed to do, i. e. hold back the steam which is precisely what you do not want.



TYPICAL MACHINE, DRIERS IN POOR CONDITION

Most traps will be found to blow steam a little perhaps because some fellow has trouble in drying his paper with them and he discovered that by doctoring them so as to get a free circulation he was able to dry his paper. Siphons or buckets without the use of traps are sufficient.

In connection with siphons, there must be some speed at which the water on the bottom of the drier tends to assume a quarter moon shape, due to centrifugal force. This, of course, lessens the available drying area and the siphons must be replaced by a correctly designed bucket system.

All Air Must Be Removed

It is important to remove all air from the driers for in steam there is always a little entrained air. This air may keep the steam away from the interior face of the drier roll and act as an insulator, which produces uneven drying. It can be swept out by a steady, positive removal of condensate. Steam in active circulation will care for removing the air. However, over Sunday, air accumulates in the driers so that on Monday morning for a short time they are practically useless. To insure a quick start always provide an air relief in the discharge header and open this Monday morning until the air is removed. The driers then heat up immediately and no wet paper results. The rate of the heat conduction from steam to air is given by the following formula:

$$K = \frac{1}{0.026 \text{ plus } \frac{187}{V}}$$

Where:
K = B.t.u. per hr. per sq. ft. per deg. temp. difference.
V = Velocity in ft. per second.

It is very possible that a thermostatic trap for air removal conveniently located may help considerably.

Although the tests here have been run on news and hanging paper only, it may be said that the amount of steam required to dry light and heavy weight papers is the same provided the total tonnage remains the same, and the per cent of water entering the drier part is the same, for the periods of time which the paper is in contact with the drying surface are proportional; i. e., the heavier paper

is in contact a proportionately longer time than the lighter, and the weights are then immaterial. In fact, 47-pound hanging paper has been made at a greatly increased tonnage over the normal amount of news produced, and the steam consumption increased but very little.

A Natural Question

Assuming the temperature of the sheet entering the driers to be 65 deg. F. and leaving 190 deg. F. also the moisture entering the driers to be 71 per cent, and leaving 9 per cent, we will then evaporate 2.17 lb. water per pound of paper. Under these conditions, 2496 B. t. u. will be required per pound paper, or at steam of 5 lb. pressure, 2.6 lb. of steam will be necessary. Under good working conditions, to remove the moisture from this sheet, 3 to 3½ lb. of steam at 5 lb. pressure would be very good. The natural question arises—where does this difference between the theoretical and actual steam go to? The following explanation is offered—Considerable heat is used to heat the air in the machine room and more particularly that entering the hoods which must be at certain temperature to remove the water driven off from the sheet. On wet, damp days the heat required to carry away the water evaporated from the paper is much greater since the carrying capacity is considerably reduced and, hence, more air has to be heated. Part of the heat is used to warm up the felts which are cooled periodically, part is absorbed by the condensate, part is lost through leaky joints in piping, while the major portion is lost through convection and radiation. Consider the following example—Suppose the air entered the hoods at 70 deg. F. and 40 per cent saturated. It would then contain about 3.2 grains of moisture per cu. ft. On a wet day, suppose the same air entered at 70 deg. F. and was 50 per cent saturated. It would then contain 4 gr. of moisture per cu. ft. Then in both cases, the air was raised to 100 deg. F. and was 73 per cent saturated on leaving hoods. It would take away in both cases 14.4 grains per cu. ft. In the second case, 1.25 times as much air would be required and if a machine were making 50 tons of paper a day, it would be evaporating, roughly, 110 tons of water. The cu. ft. of air necessary in the first case will be about 113,143,000, and, in the second case, 141,428,750, and considering specific heat of air as 0.2415 and the weight of 1 cu. ft. of air as 0.0749 lb. the B. t. u. necessary would be, roughly 2,046,063, and 2,565,276, respectively. In either case, the heat required for the air is a factor to be considered.

The felt sweeps along vapor liberated from the sheet and it passes to the vents. Provided there are dead air pockets, some vapor may be carried along between the felt and drier, and this tends to produce an unevenly dried sheet. Vapor pockets should be swept out by properly directed air currents. Because of its nature, felt absorbs vapor and in passing from drier to drier this vapor condenses and the succeeding drier must furnish heat to re-evaporate it. This is particularly noticeable in passing from the last to the first drier. Felt driers do very little good since the contact is of such slight duration that only warming results. Also, the felt is injured by the extreme temperature. Much better an open pit with good circulation, preferably hot air. Longer life and better conditions will result.

Losses from Leaky Joints

The losses from leaky joints, etc., may be eliminated but the losses from radiation and convection cannot be prevented. The transfer of heat from steam through metal to paper, felt and air is complex, involving internal and external conductivity of the metal, the convection of heat in the surrounding medium, and the radiating power of the surface. The roll is constantly radiating heat but is also being cooled at the same time by convection. Roughly, we may say that for each degree difference in temperature, 0.092 B. t. u. are radiated per hour per square foot of surface, and under the same conditions, 0.434 B. t. u. per square foot per hour are lost by convection, from a 48-in. dia. roll. The loss by convection is greater for horizontal bodies than for upright, and is lessened by interference in air movements due to felts, frame, other driers, but is increased by draughts caused by opening doors and windows, so that any figures are approximate.

The coefficient of heat transmission increases proportionately as the square root as of the volume of air passing through it in unit time and the amount of water which air will absorb increases very rapidly with the temperature of the air. Considering ¼ of the area to be exposed and almost useless for drying, the loss from a 48-in. drier, 12 ft. face, for a 170 deg. F. temperature difference would be approximately 3200 B. t. u. per hour by convection, and 700 by radiation, or a total of 117,000 for 30 driers.

The sum of all the above losses account, in a measure, for the losses in drying.

Regulating Device Often Neglected

In ordinary operation, the regulating device controlling the steam going to the driers is very often neglected. To get desired results, the regulator should be sensitive to the slightest change in moisture and sturdy enough to cause a positive immediate movement of the valve controlling the steam supply. It must not cause the valve to overthrow in either direction so that a greater than or less than required amount of steam is admitted to the supply header. In other words, it must act as a delicate balance between the moisture in the sheet and the steam in the rolls. Control from moisture is mentioned here for on most machines the moisture content of the sheet as it passes the tension roll governs the per cent in the finished product. The tension roll should be adjusted so as to be in perfect line and free to move at the slightest change in the draw of the sheet.

Some Simple Directions

In conclusion, it is obvious that marked economies must result by adhering to the following simple directions:

1. Make sure the regulating valve, or valves, are functioning properly; that they do not overthrow, and that their travel is cared for completely by the movement of the tension roll.
2. Eliminate all unnecessary bends or restrictions in pipes and have the pipes of ample size, both supply and return.
3. Stop leaks in valves and pipes.
4. Provide air relief in discharge header.
5. Inspect siphon pipes or buckets regularly and keep siphons within an inch, at the maximum, from the bottom, and preferably within half an inch.
6. Keep the inside and outside surfaces of the driers clean at all times.
7. Provide correct ventilation for the machines, pit, and machine room.
8. Hood the machines closely, and make sure that the vapor leaving vents is very nearly saturated, i. e., that the air is doing its utmost and you are not heating a large excess. Recording psychrometers placed in the vents will pay large dividends.
9. Use dry saturated steam of uniform quality.

Promotions in Sutherland Paper Co.

[FROM OUR REGULAR CORRESPONDENT.]

KALAMAZOO, Mich., August 25, 1924.—The resignation of N. M. Brisbois as general superintendent of the Sutherland Paper Company to accept a similar position with the National Paper Products Company, Stockton, Cal., has resulted in two promotions at the Kalamazoo plant. David Eggleston, former beater room foreman, has been made superintendent of the board mill, while "Ted" Conklin is advanced to the same post in the carton plant.

Word has been received from Mr. Brisbois that he is now well located at Stockton and pleased with his business connections in California.

PAPER DRYING TESTS

[NOTE—During the past year reports were received by the Paper Drying Committee from a number of paper mills giving the results of tests based on the Drying Code, which had been compiled in co-operation with a similar committee of the Canadian Technical Section. The tabulation of a number of these tests was presented for discussion at the Annual Meeting and is given herewith. Following it are a number of revisions of the Code dealing mainly with the section on Air Data and which experience has shown to be necessary in order to secure more dependable figures on this important point. The revised form of the Code when published will be prefaced by a statement on paper drying which is also given.—EDITOR.

PAPER DRYING—The operation of drying paper is essentially one of supplying heat units to evaporate most of the water contained by the sheet after leaving the last press. Sufficient heat must be supplied to raise the temperature of the water and the pulp in the sheet to the evaporating point and also to turn the water into vapor. In addition heat must be supplied in sufficient quantity to the ventilating air so that the moisture vapor can be removed from the machine room without condensation.

WATER EVAPORATED—The quantity of water evaporated is obtained by calculation from the weight of the dry paper, using the percentages of the moisture contained in the sheet before and after being dried. Paper of the same grade, as for example, newsprint, will vary in moisture content leaving the press, from 73 to 60 per cent, depending on the weight of the sheet, the press conditions and the speed of the machine with the time factor of pressing. With special pressing equipment for chemical pulp to be dried this figure may be as low as 50 per cent. It is plain, therefore, that the weight of the paper dried cannot be used as the basis of the drying efficiency.

WATER TEMPERATURE—The temperature of the water in the sheet leaving the presses must be taken. This will vary from about 40 degrees to 85 degrees F., depending on the season and climatic conditions. Both the water and the pulp must be raised from this point to the evaporating point before drying begins.

TEMPERATURE OF EVAPORATION—It is generally recognized that the average temperature of evaporation is below 212 degrees F., probably between 180 and 200 degrees F., depending on the quantity and the relative humidity of the ventilating air. However, for ease of calculation it has been agreed that "from and at 212" should be used to get the theoretical heat units required.

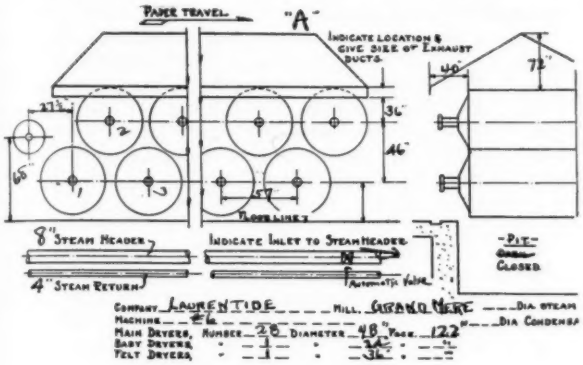
HEAT SUPPLIED TO THE DRYING CYLINDERS—On a paper machine the heat is supplied in large measure by the steam introduced into the drying cylinders. To get the quantity of heat units not only must the pounds of steam be measured but also by the use

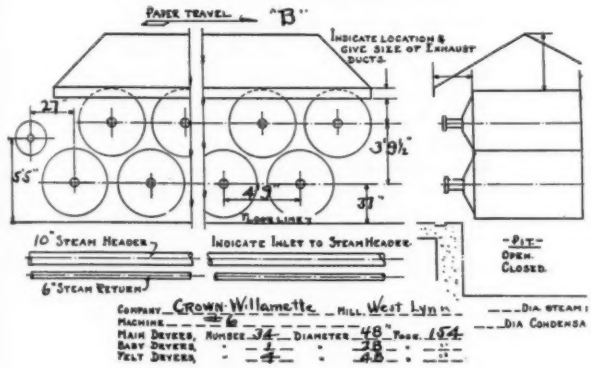
Tabulation of Paper Drying Tests

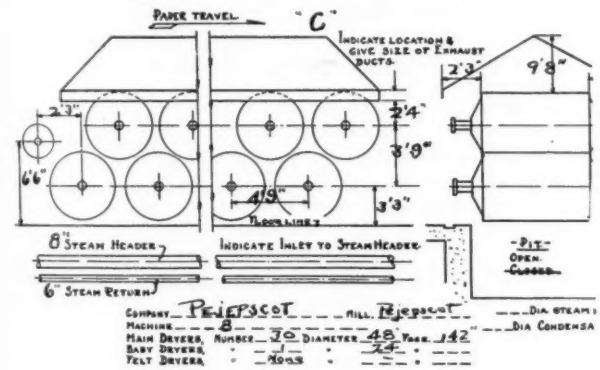
COMPILED BY COMMITTEE ON PAPER DRYING, TECHNICAL ASSOCIATION OF THE PULP AND PAPER INDUSTRY

	A	B	C	D	E	F	G	H	I
Air Data									
Company									
Date	11/10/'22	2/24/'24	11/20/'23	2/14/'24	3/7/'24	2/21/'24	2/6/'24	2/18/'22	3/28/'23
Duration of test	7.41	8.0	7.0	48.0	7.2	7.13	1.47	8.0	9.0
Barometric pressure in machine room	29.09	29.8	29.92	29.7	.....	30.0	29.5	29.92	30.0
Temperature of air surrounding driers	84.0	84.1	75.0	77.1	93.0	82.0	89.0	87.0	75.0
Relative humidity of air surrounding driers	48.0	57.5	59.0	37.0	53.0	43.5	40.0	48.0	25.0
Water per lb. dry air in air surrounding machine	.0118	.0147	.01085	.00743	.0163	.01004	.0114	.013	.005
Temperature of air in exhaust duct	126.0	109.3	105.0	132.0	113.0	113.0	113.0	100.0	89.0
Relative humidity of air in exhaust duct	84	93	86	96	75	48	56	61	42
Water [illegible] air in exhaust duct	.08	.0536	.0429	.114	.0401	.0304	.035	.022	.012
Air leaving exhaust duct, per hr	124,000	314,186	262,223	172,800	79,000	59,500	179,000	200,016	285,714
Paper Data									
Grade of paper	News	News	News	News	News	Bond	Bond	Bond	Bond
BASIS WEIGHT:									
Customary designation	32.3	32.0	32.0	32.0	36.7	46.0	61.0	65.5	16.0
Bureau of Standards	37.4	37.0	37.0	37.0	42.5	48.45	117.0	175.0	.....
Total width of sheet leaving last drier	114.75	148.0	136.0	144.5	79.25	55.5	67.5	60.0	90.0
Speed of machine	623	690	505	1,000	286	155	100	60	.....
Paper dried, lb. per hr	3,773	5,411	3,571	7,452	1,127	644	1,055	950	1,060
Temperature of stock entering driers	69.0	71.3	49.0	56.0	78.0	78.0	77.0	60.0	50.0
PER CENT B. D. FIBER IN SHEET:									
Entering driers	27.43	28.4	27.3	29.6	34.55	34 0	37.7	33.3	33.0
Leaving last drier	91.6	92.5	91.5	91.3	92.1	94.1	96.4	97.6	97.0
Water evaporated from sheet per lb. paper dried	2.339	2.257	2.35	2.468	1.665	1.88	1.56	1.93	.....
Water evaporated from sheet, lb. per hr	8,826	12,212	8,391	18,417	1,877	1,207	1,650	1,834	2,056
Steam Data									
STEAM ENTERING DRIERS:									
Steam, lb. per hr	11,850	25,214	12,140	29,031	2,793	1,422	2,630	2,783	5,055
Steam pressure gage	103.5	14.6	6.0	4.33	10.99	7.5	10.5	10.4	16.0
Steam temperature, °F.	341.0	250.0	230.0	223.0	241.0	233.0	240.5	187.0	252.0
Quality of steam	2° S. H.	1.6° S. H.	6% M.	.....	4% M.	1% M.	.....	1.5% M.	1.5% M.
HEAT UNITS:									
Heat units per lb. of steam entering driers	1190.4	1163.2	1087.4	1155.0	1127.0	1150.8	1160.0	1162.0	1164.0
Heat units entering driers, B.t.u. per hr	14,190,000	29,328,683	13,201,502	26,920,000	3,148,293	1,628,752	3,050,000	3,233,846	5,884,602
DISCHARGE FROM DRIERS:									
Pressure	20.8	11.6	0.3	4.33	9.53	5.1	.....	11" vac.	.....
Temperature	259.5	242.0	215.0	219.0	237.0	225.9	212.0	228.0	217.0
Heat units per lb	289.7	210.6	241.0	251.0	206.0	194.0	180.0	196.0	185.0
Heat units in discharge from driers, B.t.u. per hr	3,436,000	5,310,024	2,925,843	7,280,000	575,464	292,400	472,000	545,468	935,268
HEAT UNITS ABSORBED:									
Heat units absorbed by driers, B.t.u. per hr	10,754,000	24,018,658	10,275,659	19,640,000	2,572,829	1,335,900	2,578,000	2,688,378	4,949,344
By driers per lb. water evaporated from sheet	1263.0	1966.7	1224.6	1067.0	1370.7	1103.0	1390.0	1461.0	2407.0
Heat units to the auxiliary system per lb. water evaporated from sheet	.....	64.1	.....	.....	.....	180.0	.....	.....	48.0
Total overall heat units used per lb. water evaporated from sheet	1263.0	2030.8	1224.6	1067.0	1370.7	1283.0	1390.0	1461.0	2407.0
Summary									
Water evaporated per sq. ft. effective drying surface per hr	3.659	3.301	2.61	3.2	1.703	1.93	1.53	.....	.....
Paper dried per sq. ft. effective drying surface per hr	1.564	1.462	1.11	1.288	1.022	1.04	0.98	.....	.....
Steam per lb. paper dried	4.025	4.66	3.4	3.02	2.478	2.567	2.28	.....	.....

of thermometers and steam tables the heat units per pound of steam calculated. The most correct method of measuring the steam and the heat supplied by it is to weigh the condensate from the drying cylinders. By subtracting the heat units carried by the condensate from the amount supplied to the cylinders the quantity of heat absorbed in drying is obtained. If steam flowmeters are used they should be carefully calibrated. In a test, since the condensate must in any case be weighed, it is advisable to use it as a measure of the steam supplied. The steam flowmeter figures would include whatever steam is exhausted to atmosphere during breaks or on account of a surplus of exhaust, and they could be used to check the quantity of steam so wasted.


PAPER TRAVEL "A"
INDICATE LOCATION & GIVE SIZE OF EXHAUST DUCTS
8" STEAM HEADER
INDICATE INLET TO STEAM HEADER
4" STEAM RETURN
-PIT- OPEN CLOSED
COMPANY LAURENTIDE MILL GRAND MERE
MACHINE #6
MAIN DRYERS, NUMBER 20 DIAMETER 48" FACE 122"
BABY DRYERS, " 1 " " 36" "
FELT DRYERS, " 1 " " 36" "
DIA STEAM
DIA CONDENSA


PAPER TRAVEL "B"
INDICATE LOCATION & GIVE SIZE OF EXHAUST DUCTS
10" STEAM HEADER
INDICATE INLET TO STEAM HEADER
6" STEAM RETURN
-PIT- OPEN CLOSED
COMPANY CROWN-WILLAMETTE MILL WEST LYNN
MACHINE #6
MAIN DRYERS, NUMBER 34 DIAMETER 48" FACE 164"
BABY DRYERS, " 1 " " 48" "
FELT DRYERS, " 1 " " 48" "
DIA STEAM
DIA CONDENSA


PAPER TRAVEL "C"
INDICATE LOCATION & GIVE SIZE OF EXHAUST DUCTS
8" STEAM HEADER
INDICATE INLET TO STEAM HEADER
6" STEAM RETURN
-PIT- OPEN CLOSED
COMPANY PEIRCE MILL PEIRCE
MACHINE #8
MAIN DRYERS, NUMBER 30 DIAMETER 48" FACE 142"
BABY DRYERS, " 1 " " 24" "
FELT DRYERS, " NONE " " "
DIA STEAM
DIA CONDENSA

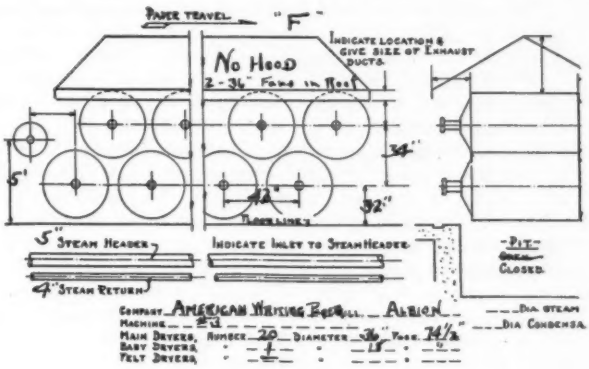
D

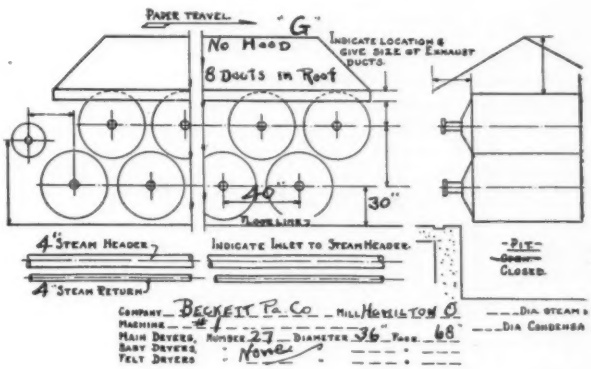
Consolidated W. P. & P. Co., Wisconsin Rapids, Wis. Mach. No. 4 Main Driers 37, Dia. 72 in. Face 156 in. 1 Felt Drier.

E

Great Western Paper Co., Ladysmith, Wis. Main Driers 19, Dia. 36 in. Face 87 in. 1 Baby Drier 19 in.

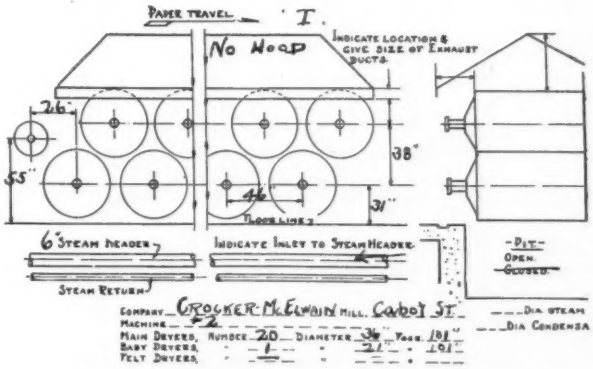
HEAT SUPPLIED IN THE VENTILATING AIR—The ventilating air must be raised in temperature from the outdoor condition to that in the exhaust ducts. By using the wet and dry bulb temperature figures and the quantity of water evaporated obtained by a previous calculation, together with Carrier's Psychometric Charts, not only can the quantity of air used be calculated, but also the heat supplied to it. The quantity of air supplied should be such that the exhaust air is at least 80 per cent relative humidity. The lower it is in relative humidity the more wasteful is it in heat units. As a check to the heat units supplied to the air the weight of the condensate from the air heating apparatus should be obtained. It must be remembered that in many instances


PAPER TRAVEL "F"
No Hood
2-36" Fans in Roof
INDICATE LOCATION & GIVE SIZE OF EXHAUST DUCTS
5" STEAM HEADER
INDICATE INLET TO STEAM HEADER
4" STEAM RETURN
-PIT- OPEN CLOSED
COMPANY AMERICAN WRITING PAPER CO. MILL ALBION
MACHINE #1
MAIN DRYERS, NUMBER 20 DIAMETER 36" FACE 74½"
BABY DRYERS, " 1 " " 15" "
FELT DRYERS, " " " " "
DIA STEAM
DIA CONDENSA


PAPER TRAVEL "G"
No Hood
8 Ducts in Roof
INDICATE LOCATION & GIVE SIZE OF EXHAUST DUCTS
4" STEAM HEADER
INDICATE INLET TO STEAM HEADER
4" STEAM RETURN
-PIT- OPEN CLOSED
COMPANY BECKETT P. CO. MILL HAMILTON O
MACHINE #1
MAIN DRYERS, NUMBER 27 DIAMETER 36" FACE 68"
BABY DRYERS, " NONE " " "
FELT DRYERS, " " " " "
DIA STEAM
DIA CONDENSA

H

Chemical Paper Mfg. Co., Holyoke, Mass.


PAPER TRAVEL "I"
No Hood
INDICATE LOCATION & GIVE SIZE OF EXHAUST DUCTS
6" STEAM HEADER
INDICATE INLET TO STEAM HEADER
STEAM RETURN
-PIT- OPEN CLOSED
COMPANY CROCKER-McELWAIN MILL CABOT ST.
MACHINE #2
MAIN DRYERS, NUMBER 20 DIAMETER 36" FACE 101"
BABY DRYERS, " 1 " " 21" "
FELT DRYERS, " " " " "
DIA STEAM
DIA CONDENSA

warm air is drawn from other parts of the mill where it has absorbed heat.

It is recognized as a practical impossibility to measure with any accuracy the quantity of air supplied to the machine by the use of anemometers or other instruments.

The weight of the water evaporated and the quantity of water carried per pound of air is believed to be the most feasible and correct method of calculating the quantity of air used in ventilation. It is well to allow an additional 5 to 10 per cent to the figure of water evaporated to allow for moisture given up at the wet end of the paper machine.

EFFICIENCY—The ratio of the theoretical amount of heat units to evaporate a pound of water at its temperature in the sheet, to that supplied, is a measure of the paper drying efficiency.

The water evaporated and the paper dried per square foot of effective drying surface per hour are figures which can be used to advantage in comparing the relative drying capacity of different paper machines. The figure of pounds of steam per pound of paper dried is added because of the fact that it is still used to some extent by paper mills, but for reasons stated in the second paragraph, is of little value for comparative purposes.

CHANGES IN REVISED PAPER DRYING CODE

7. Outside temperature .....Dry Bulb ° F. .....
Wet Bulb ° F. .....
8. Temperature of air surrounding driers.....Dry Bulb ° F. .....
Wet Bulb ° F. .....
9. Temperature of air in exhaust duct.....Dry Bulb ° F. .....
Wet Bulb ° F. .....

(Note: Above temperatures should be average of hourly readings.)

10. (a) Relative humidity of outside air (Item 7)..... .....%
(b) Pounds of water per pound of dry air outside..... .....lb.
11. (a) Relative humidity of air surrounding driers (Item 8).. .....%
(b) Pounds of water per pound of dry air surrounding drier .....lb.
12. (a) Relative humidity of air in exhaust duct (Item 9)..... .....%
(b) Pounds of water per pound of dry air in exhaust duct. .....lb.
(Use Carrier's Psychometric Charts.)
13. Air leaving exhaust duct:
(a) Total number of pounds during test..... .....lb.

$$\frac{\text{Item 23}}{\text{Item 12 (b)} - \text{Item 10 (b)}}$$

(b) Pounds of air per pound of water evaporated..... .....lb.

$$\frac{1}{\text{Item 12 (b)} - \text{Item 10 (b)}}$$

(c) Total heat units passing out exhaust duct per pound water evaporated ....B.t.u.
(Item 13 (b) x total heat per pound of air as shown by wet bulb temperature.)
23. (a) Water evaporated from sheet: Total.....lb. Per hour .....lb.
(Item 22 x Item 18)
(b) Water and stock heated to evaporating temperature (212° F.):
(Item 23a + Item 15) Total.....lb. Per hour .....lb.
36. (a) Total pounds of condensate for heating and ventilating system, including roof coils..... .....lb.
(b) Heat units for heating and ventilating per pound of water evaporated ....B.t.u.

$$\frac{\text{Item 36 (a) x Net heat units per lb. of steam}}{\text{Item 23}}$$

(c) Total overall measured heat units per pound of water evaporated from sheet..... .....B.t.u.
(Item 35 + Item 36b)
(Note: Difference between Item 13 (c) and 36 (c), if any, due to neglect of radiation loss, inward leakage of heated air or inaccurate temperature readings. Recommend using Item 13 (c) for total overall heat units per pound of water evaporated from sheet.)
37. Theoretical heat units required per pound water evaporated .....B.t.u.
(From Item 19)
41. Efficiency of drying operation..... .....%

$$\frac{\text{Item 37 x 100}}{\text{Item 36 (c)}}$$

Newfoundland Paper Mills Bring Prosperity

MONTREAL, Que., August 25, 1924.—Construction of large paper mills on the west coast of Newfoundland is officially given as the reason why the Newfoundland Government Railway paid its way in the fiscal year just ended, for the first time in many years. The system was taken over by the Government last year from the Reid-Newfoundland Company, which constructed it and had operated it for a long period. Four years ago it showed a deficit of $1,500,000. This was increased in the next year, but since then has decreased.

Beater Roll Fillings

Editor PAPER TRADE JOURNAL:

Could any of your readers offer some suggestions as to the best way to secure the flybars of our 67 by 60-inch beaters, to keep them from loosening off and striking 10-inch elbow-style bedplate, and shaking off oak fillers?

We have five 2,000-pound beaters, and do all of our grinding of the kraft pulp we use in these engines, not employing a shredder or other stock cutters.

Our beaters have their flybars secured to four heads by shoulders fitting into slots held in position by bands shrunk on them. No wedges are used for this purpose. The wooden fillers are carefully fitted to fill the space between bars and are secured in place by bolts tightly secured to wooden pieces resting against inside of iron heads.

As we find that after a few months, or better, weeks, beaters have to be stopped to tighten bars and replace fillers, we would appreciate any practical suggestions as to a better way to secure both bars and fillers, considering that these beaters grind the kraft pulp we use in this mill for 95 per cent of the production.

Thanking you for any attention that may be given to this request, either by the staff or the readers of the PAPER TRADE JOURNAL, we beg to remain,

Very truly yours,
E. I. M.

Considering the hard service your beater rolls must perform, not only in beating kraft pulp, but also in disintegating the dry sheets, we are of the opinion that your difficulty with wood filling cannot be overcome, except in one of two ways. Either relieve your beaters of the part of the work that is hardest on the filling (i., e., breaking up the dry sheets), or adopt the solid manganese steel filling shown in the issue of August 7, where Champion Coated Paper Company's beater equipment is pictured.

There is a considerable difference in the life of wood beater filling, depending not only on the skill of the mechanic doing the work, but also on the treatment the roll afterwards receives when fed with dry sheets or laps. In any case the logical thing to do first is to shred or otherwise disintegrate the pulp to slush form before it is put into the beater.

Several hours' preliminary soaking in water would materially reduce the beating time necessary. We would also advise you to investigate the solid filling which the builders of your beaters can undoubtedly furnish.

We understand that Taylor-Wharton Iron & Steel Company, High Bridge, N. J., are the primary manufacturers.

Letters from PAPER TRADE JOURNAL readers on this subject will be welcomed and will be passed to the inquirer in blank if so desired.

EDITOR.

Fall Meeting of Technical Association

The fall meeting of the Technical Association of the Pulp and Paper Industry will be held in Buffalo at Hotel Statler on October 14 and 15, 1924.

Following the business session, the subsequent sessions will be devoted to the discussion of such problems as vocational education and training, paper drying operation tests, paper testing and relative humidity conditions, revision of the standard method of testing pulp for strength, prevention of waste in the mill affluent and stream pollution.

The Technical Association of the Pulp and Paper Industry is an organization of engineers, chemists and men of sound training in pulp and paper manufacture.

The fall meeting, according to established custom, will be given up to the consideration of practical manufacturing problems of timely interest to members of the industry.

CURRENT PAPER TRADE LITERATURE

Abstracts of Articles and Notes of Papermaking Inventions Compiled by the Committee on Abstracts of Literature of the Technical Association of the Pulp and Paper Industry

CLARENCE J. WEST, Chairman

Wet Presses. A. Goy. Eng. pat. 205,017. In order to lengthen the life of felts used in the wet presses of paper machines, it is necessary to keep the meshes permanently open, or to reopen them as soon as possible if they have been closed by contraction. It is also necessary to be able to stretch the fabric in any direction. This is effected by bringing the felt into more or less pronounced engagement with two guiding drums, one with a convex surface and the other with a concave surface. If the felt is brought in pronounced engagement with the concave drum, the edges of the felt will be stretched; and if brought in more pronounced engagement with the convex drum, the center part of the felt will be exposed to the stretching effect. The two drums are adjustably mounted so that their engagement with the felt can be regulated at will.—A. P.-C.

Feeding Webs to Cutting Machines. G. Spiess. Eng. pat. 205,576. The improvement in this machine consists of a control device whereby the paper webs may be fed continuously to the cutting apparatus and regulated to compensate for the delays caused by the actual cutting operation. For this purpose the web feeding rollers are mounted on carriers and operated by a tensioning pulley connected to a main pulley so that the circumferential velocity of the page of the web during cutting.—A. P.-C.

Mounting Breast Rolls and Wire Rolls. E. B. Wright and web feeding rollers may be varied to allow for the temporary stop-W. W. Weaver. U. S. pat. 1,419,002, June 6, 1922. A washer and collar are placed on the shaft some distance away from the first. A coiled spring is provided between the two collars to cushion the severe jolts caused by the shake of the wire and thereby greatly reduce the deterioration of the bearing boxes.—A. P.-C.

Method of Transferring Paper From the Wire to the Driers. J. D. Tompkins. U. S. pat. 1,454,606, May 8, 1923. An auxiliary lower couch roll is provided at some distance from the first, and an upper suction couch is used, which rests on the wire at a point between the two lower couches. An endless felt goes around the upper couch, and the pressure of the roll on the wire makes this felt pick up the sheet. In passing through the presses the paper is held between two felts, and one or more suction rolls are provided between the first press and the couch rolls to draw as much water as possible out of the sheet. After passing through the last press the upper felt is carried around a roll resting on the first drier and is thus used for carrying the sheet from the last press to the first drier.—A. P.-C.

Washing Reclaimed Paper Pulp. O. C. Winestock. U. S. pat. 1,468,337, Sept. 18, 1923. Inked paper pulp is continuously fed to a washing apparatus in which a definite level of pulp is maintained, gradually moved through the apparatus to effect washing without rolling the pulp, and wash water is withdrawn from the upper portion of the pulp.—A. P.-C.

Stock Regulator. A. T. Hilaman. U. S. pat. 1,442,272, Jan. 16, 1923. Stock from the machine chest is delivered to a compartment of a tank from which it is delivered by means of spout into a hopper in a neighboring compartment. The hopper is suspended in such a manner that when it contains a predetermined amount of stock it is counter-balanced. If it contains more stock it moves downwardly, thereby partially closing the orifice through which the stock passes through the spout; and if it contains less stock it rises thereby partially opening the orifice and letting in more stock. A circular spray pipe is provided for discharging water in the hopper to wash out the stock.—A. P.-C.

Maintaining Uniformity of Paper Pulp Stock. G. P. Berkey. U. S. pat. 1,472,238, Oct. 30, 1923. Withdrawal of deckered slush pulp of a substantially uniform consistency from large storage tanks in which the material has settled so far as to be of varying consistency is effected by drawing the variable pulp from the tanks as needed, adding water, and redeckering to a uniform consistency.—A. P.-C.

Machine for Making Paper Bags. J. E. Evans-Jackson. Eng. pat. 205,234. This is an improved machine for manufacturing a number of lined bags simultaneously. It has a number of folding mandrels mounted upon an intermittently rotating carrier and cooperating with a number of folder and adhesive appliances. Despite its multiple capacity the machine is of simple construction.—A. P.-C.

Toilet Paper Winder. L. Scusa. U. S. pat. 1,421,730, July 4, 1922. The machine is constructed so as to automatically wind the core on a mandrel, wind the paper on the core, and affix the label to the finished roll, which is then stripped from the mandrel. The various operations are carried out simultaneously on different mandrels, a finishing roll being labelled, while another is being wound on a second mandrel, and a core for a third roll is being wound on still another mandrel.—A. P.-C.

Rossing Machine. J. Moravec. U. S. pat 1,456,328, May 22, 1923. One or more pairs of drums are mounted almost parallel, but with axes slightly inclined in opposite directions to the horizontal, and are rotated in the same direction but at different speeds. The drums are grooved longitudinally, so as to form a series of longitudinal teeth, the edges of which are sharpened to form cutting surfaces. The log lies on the cutters of its own weight, and the inclination of the axes gives it a certain longitudinal motion which is limited by means of a suitable stop at one end of he machine. It is claimed that the logs lie on the cutters without being thrown about, and that the bank is removed quickly and efficiently without appreciable loss of good wood.—A. P.-C.

Apparatus for Extracting and Folding Sheets of Paper. R. Braunstein. U. S. pats. 1,458,462 and 1,458,463, June 12, 1923. See Can. pats. 219,221 and 219,222, June 6, 1922; *Pulp & Paper* 20, 769, Sept. 7, 1922.—A. P.-C.

RBF Ball Bearings. *Papier* 27, 55-59 (Jan. 1924). A discussion of the advantages of ball bearings as compared with plain bearings.—A. P.-C.

Can Losses of Energy Be Reduced to a Minimum? *Papeterie* 46, 68-73 (Jan. 25, 1924). A discussion of the savings in power effected by the use of ball bearings.—A. P.-C.

Westinghouse Dual Frequency Supercalender Drive. O. C. Cordes. *Paper Mill* 48, No. 7, 14, 18 (Feb. 16, 1924); *Paper* 33, No. 19, 9-11 (Feb. 28, 1924). A description of the drive and discussion of its merits. It consists essentially of a single motor which drives the lower calender roll through one chain or gear reduction, with control panel containing the usual equipment including a frequency changer set. The latter reduces the primary voltage and frequency to approximately 10% of its normal value, which causes the motor to run at approximately 10% of its normal speed.—A. P.-C.

Carbon Dioxide Recorder. W. D. R. Brown and W. T. Pickston. U. S. pat. 1,422,080, July 11, 1922. The gas is alternately drawn into and driven out of a vessel by the alternate emptying and filling of the latter with water under control of a siphon. The gas is driven partly into the atmosphere and partly into an absorbing solution when it passes into an inverted bell or float con-

TECHNICAL SECTION, PAGE 86

nected to the indicating and recording device. The gas is automatically released after the analysis. (The apparatus is also suitable for the determination of sulphur dioxide in sulphur burner gases.)—A. P.-C.

Process for the Continuous Evaporation of Liquids. E. S. Sandberg. U. S. pat. 1,433,040, Oct. 24, 1922. In the vapor compression method of evaporation, it is necessary to spread the liquid in a thin layer over the heating surface, which is troublesome and difficult. This is overcome according to the patent, by passing the liquid through heating tubes at a pressure such that no evaporation can take place, and then discharging it through a throttling nozzle into an expansion chamber where part of the liquid is converted into vapor which is compressed and used for heating. The nozzles are shaped so as to discharge the mixed liquid and vapor tangentially to the wall of the expansion chamber so as to separate the liquid from the vapor. The process is suitable for the evaporation of sulphite waste liquor and of soda and sulphate black liquors.—A. P.-C.

Pneumatic Pumping. P. Chr. Schaanning. *Papir-Journalen*, No. 20 (Nov. 10), 1923. The difficulties attending the pumping of fibrous materials of thick "consistence" are, it is asserted, recognized by the majority of technical experts in paper mills. It is especially difficult to pump cellulose. As a general proposition it will be admitted that the lighter the fibers, that is to say, the more fragile the texture of the stuff as it is prepared for the paper or cellulose machine, the more difficult it is to pump. In order to force these light fibers through pipes during the pumping of thick halfstuff, it was decided to employ compressed air, which was run through a 4-inch pipe immediately after the pulp left the pump. Experiments were made with 6.5 per cent, 7 to 7.3 per cent, 7.5 to 8 and 9 to 10 per cent pulp. A 4-inch rotary pump and motor making 1,450 revolutions, was connected with a 4-inch pipe about 15 meters long. The quantity of compressed air required varied with the density of the pulp, but it was shown that without compressed air the proportion of stuff pumped was small, and in the case of the thicker grades there was none. In the mills a 4-inch rotary pump was installed with a 4-inch pipe, and compressor supplying 870 liters of compressed air per minute. The pump was connected with a 7½-hp. motor, making 1,500 revolutions. Without compressed air the pump delivered 200 liters of pulp a minute, with compressed air about 1,500 liters. The advantages of the pneumatic system are practical and economic, since there is a saving of power and an increase in the quantity of thick pulp from the pump; also the dimensions of pump and pipes can be smaller than formerly; there is the further advantage for manufacturers of fine paper that rust is avoided and specks in the sheet, which are defects due to the choking of pipes and formation of impurities in the pulp. In some mills copper pipes are used in place of iron, a small copper pipe being regarded as no less economical than a large iron one.—P. B.

Bamboo. R. Bouvier. *Science Et Indus.* 7, No. 108, 89-91 (Jan. 31, 1923). A description of bamboo and of bamboo pulp, with an outline of the proper pulping treatment on a commercial scale.—A. P.-C.

Process of Bleaching Paper Pulp. E. Ebie and G. A. Richter assignors to Brown Co. U. S. pat. 1,470,556, Oct. 9, 1923); *Paper Trade J.* 77, No. 24, 55 (Dec. 13, 1923). The pulp is first bleached in the usual manner with calcium hypochlorite solution containing about 62 g. of available chlorine per liter, to a point where it shows a color number of 95 to 99, washed, and treated with anti-chlor if necessary. The second stage, or super-bleaching, is then carried out by a solution of chlorine in water, an amount equal to about 0.2 to 0.5% of the air dried stock being used. Bisulphite solution is then added to the pulp in sufficient quantity to neutralize any resulting hydrochloric acid and to combine with any remaining traces of chlorine. The stock is washed and treated in the usual manner.—A. P.-C.

TECHNICAL SECTION, PAGE 87

Manufacture of Dense and Strong Paper. Carl G. Schwalbe. Ger. pat. 381,144. *Papierfabr.* 21, 451-452 (Oct. 7, 1923). Paper stock is sized with liquid rosin from pine trees. The rosin is added in an emulsified condition or dissolved in some solvent. Subsequently the sheet is dried at 100° to 120° C.—J. L. P.

Machine for Coloring Paper. L. P. Winchenbaugh and L. Gentile assignors to L. P. Winchenbaugh Co. U. S. pat, 1,454,362, May 8, 1923. A colored solution is absorbed by a woolen felt and applied to a roll on which it rests. The paper web passes between this roll and another one under it. The pressure between the two rolls is adjustable. The surface of the color applying roll may have suitable designs in relief, which are thus printed on the paper; and the surface of the second roll may have corresponding hollow designs, so that the paper is both colored and embossed at the same time.—A. P.-C.

Paper Coloring and Drying Machine. L. Gentile assignor to L. P. Winchenbaugh Co. U. S. pat. 1,454,376, May 8, 1923. The paper is drawn under tension under, and in contact with, a slotted or perforated pipe containing the color solution, in such a manner that there is a relatively large angle of contact between the paper and pipe. It is then passed over an electrically heated arched casing, and in close contact with the top of the casing. The solution is fed into the pipe from a constant level tank to keep the head constant and ensure a constant delivery of color to the paper; and the rolls through which the paper is drawn may be either smooth or roughened, and in the latter case the paper is embossed as well as colored.—A. P.-C.

Handling Dyes in the Paper Mill. L. J. Matos. *Amer. Dyestuff Reporter; Paper Making* 43, 430 (Nov. 1923). Practical direction on the precautions to be taken in dissolving dyes.—A. P.-C.

Dyeing and Coating Woven Paper Fabrics. W. T. Plum, Jr. U. S. pat. 1,472,230, Oct. 30, 1923. A woven paper or similar fabric is treated with a dye, its surface is roughened and it is then impregnated with a waterproofing composition such as a rubber, pyroxylin or cellulose composition.—A. P.-C.

Coloring of Paper. Leonard Mann. *Paper Mill* 48, No. 8, 4, 14, 16, 18, 42, 44 (Feb. 23, 1924). A description of the principle involved in coloring paper with aniline dyes, together with general information on the characteristics of basic, acid, direct, vat and sulphur dyes and a discussion of the selection of the proper dyes for shade and fastness requirements and for different grades of paper.—A. P.-C.

Processes of Coloring Coated Paper. Norman Clark. *Paper* 33, No. 18, 9-11 (Feb. 21, 1924). An enumeration of the more important varieties of coated papers with an indication of their uses, together with a discussion of some of the more important troubles encountered in coloring them with lake colors or "pulps," aniline dyes, and colored pigments, and indications as to how to overcome these troubles.—A. P.-C.

Coloring Coated Paper. F. P. Reed assignor to C. C. Orcutt. U. S. pat. 1,432,734, Oct. 17, 1922. After being coated the paper is passed through the color-applying device, which consists essentially of one or more series of pens or of blades of suitable thickness to make lines of the desired width. Each series is mounted on a carriage, together with the color solution tank, and the color is fed to the pens or blades by means of felts. The carriage can be given a reciprocating motion to form wavy lines. If desired, a roll with rubber stamps is provided for printing suitable designs. The paper travels on top of a wire cloth, which causes a slight vibration of the pen, resulting in "feathering" of the lines.—A. P.-C.

Coloring of Paper. Farbwerke v. Meister Lucius & Bruning. Ger. Pag. 388.096, *Pepierfabr.* 22, No. 51 (Feb. 10, 1924). The moist paper, especially parchment, is passed through a solution of soluble dyestuffs.—J. L. P.

Section of the

COST ASSOCIATION OF THE PAPER INDUSTRY

Affiliated with

THE AMERICAN PAPER AND PULP ASSOCIATION

Conducted by THOS. J. BURKE, C.A., Sec-Treas

PROTECTION OF WORKING CAPITAL*

By J. H. Bliss, Comptroller, Libby, McNeill & Libby

An appropriation of surplus for bond sinking fund reserves is frequently required by the trust deeds supporting bond issues. Most of these provide for the creation of a sinking fund to care for the retirement or partial retirement, of the issue. As a general rule, these sinking funds are created by periodical deposits made with the trustee, and trust indentures commonly provide that as a deposit is made with the trustee for the sinking fund, a like amount shall be charged against the Income account or Profit and Loss account. The wisdom of this is obvious. The charge to the Income account is not made because such a charge is an expense of the year or a cost of doing business, but in order to protect the company from impairment of its working capital.

A going company will ordinarily receive new funds into the business from time to time through earnings left in the business and only in this way. The payments to a sinking fund for retirement of long-term debts represent withdrawals of funds from the working capital of the business. In order to maintain the working capital it is therefore necessary to set aside a part of the new funds coming in each year through earnings, to cover the amounts which are withdrawn and deposited in sinking fund. Charges are not made against the Income account or Profit and Loss account of business covering sinking fund deposits with the thought in mind that such charges are in the nature of expenses, but solely to withhold sufficient of the earnings in the business to protect the working capital from impairment.

If earnings are not set aside to cover these withdrawals for sinking fund, the so-called Free Surplus account would appear that much larger and might result in disbursement of dividends in cash. Surplus cannot be considered if funds realized from these earnings have already been withdrawn from working capital and paid out of the business in retiring long-term debts.

Where the trust indenture does not provide for charges against Income, or Profit and Loss account, or Surplus Account, covering sinking fund deposits, the concern should, of its own accunt, appropriate surplus to cover such withdrawals.

The necessity of this may not be apparent from the results of one year's business, but it should be borne in mind that the effects of these withdrawals for the sinking fund accumulate from year to year. While the amount taken out of the working capital in one year may not be of such importance, over a period of years these withdrawals might readily accumulate to a total equal to or exceeding the amount of the Surplus account. This is easily possible as bond issues may be of considerable size when judged in proportion to the total funds invested in the business; and the amounts withdrawn from working capital, accumulated throughout the years, might in time become greater than the amount which the company would ordinarily carry in its Surplus account.

As deposits are made in the Sinking Fund, a like amount of surplus should be appropriated and set up as a bond sinking fund reserve. This can be created by charges to Income account, or Profit and Loss, or Surplus account. When a bond is retired, the amount that has been set aside in the fund theoretically becomes free surplus—that is, at the disposition of the directors. As a matter of fact, it generally is not free surplus, but more often surplus earnings which have been invested in fixed property and equipment. Bond issues are generally put out to finance plant and equipment investments. The retirement of such a bond issue out of earnings is in effect the investment of earnings in fixed plant and equipment properties. Hence this sinking fund reserve will generally represent surplus earnings left in the business but permanently tied up in fixed plant and equipment investments.

A sinking fund reserve cannot be considered as taking the place of a depreciation reserve, for to do so would result in understating the costs and operating expenses by leaving depreciation out of costs. Further, as a sinking fund reserve represents actual withdrawals out of working capital, any replacements which might be charged against that reserve if it were later transferred to a depreciation reserve, would represent a double drain on the working capital of the business. Therefore, the disposition of the sinking fund reserve, when the bond issue for which it was created has been retired, must take into consideration the future protection of the working capital position in the business. Such sinking fund reserves released by the retirement of the issue, are available for other purposes only in the measure that other permanent financing has replenished the working capital of the business. They should, therefore, be considered free surplus only when it is determined that funds are on hand as working capital to support them.

Surplus appropriated for bond sinking fund reserves is part of the net worth or stockholders' investment in the business, and should be included in the book value of the stock, as it represents earnings of past years which the stockholders have permitted to remain in the business in order to retire long-term debt. It is a part of the stockholders' investment the same as any other earnings or surplus left in the business.

Surplus Appropriated to Cover Expenditures for Fixed Properties

Expenditures are made from year to year for additions and betterments to fixed plant and equipment investments, and unless

* Management and Administration.

these expenditures are specifically provided for by permanent financing, they are withdrawals from working capital funds. In such case a like amount of surplus should be appropriated in order to withhold and keep up an equal amount of earnings in working capital. Such a reserve or Appropriated Surplus Account may be created by charges to the Profit and Loss account or Surplus account, setting the amount up as appropriated surplus.

As in the matter of surplus appropriated for sinking fund reserve, this may not be of importance in any one year, but it must be borne in mind that the effect of these withdrawals accumulates and builds up from year to year. The suggested practice is to appropriate at the close of each fiscal year an amount of surplus equal to the amount which is permanently invested in fixed plant and equipment out of the working capital funds. If such additions and betterments are later covered by permanent financing, such as bonds, and the proceeds of the bond issue are left in the working capital of the business, then the working capital has been replenished by this amount through the bond issue, and the Appropriated Surplus account may be adjusted accordingly, transferring a like amount back into the Free Surplus account.

Surplus appropriated to cover expenditures for fixed properties is a part of the net worth of the business and enters into the book value of its stock. It represents earnings which the stockholders have seen fit to leave in the business for the purpose of development in such direction as may seem advisable.

Surplus Appropriated to Cover Investments, Advances and Securities

Where working capital funds of a business are permanently tied up in investments or advances to other companies, unless such investments are provided for by permanent financing, a like amount of surplus should be set aside in order to protect the working capital position of the business.

Investments in, or advances to, other companies very often mean current liabilities have been created, and it must be recognized that such current liabilities cannot be liquidated out of these permanent investments in, or advances to, other companies. If not covered by permanent financing, the funds of necessity must come out of working capital. Hence to protect the working capital position of the company, surplus should be appropriated to such an amount as will withhold a like amount of earnings in the business.

Surplus Appropriated to Cover Intangible Fixed Investments

Intangible fixed investments made by expenditures of working capital funds, unless provided for by permanent financing, should be covered by appropriations of surplus in order to protect the company's working capital position. Expenses in connection with patents, franchises, copyrights, advertising, etc., when capitalized, represent expenditures of current working capital funds which usually are not specifically provided for. These are permanent investments, the same as investments in plant and equipment. They represent investments of surplus earnings. Whenever important they should be covered by appropriation of surplus in order that a like amount of funds may be retained in working capital

These appropriations to cover intangible fixed investments represent a part of the net worth or stockholders' investment in the business and should be included in computing the book value of the stock. If these intangible investments are later amortized or written off against the operations, the amounts so charged off represent sums withheld in the business, and build up the working capital. Hence, as these intangible fixed investments are written off, it would be logical to release the surplus which was appropriated to cover them to the amount of the write-offs.

Surplus Appropriated to Cover Deferred Charges

Deferred charges arising out of bond discount and expenses do not represent withdrawals from the working capital of the business as they are covered by the bond issue.

The amortization of debt discount and expense from year to year throughout the life of a bond issue is in itself a protection to the working capital of the business and ultimately withholds in working capital the amount of such discount and expense which is to be disbursed as the bonds are retired.

On the other hand, deferred charges arising out of expenditures of working capital funds, for instance, such as: organization expenses (other than paid in stock); experimental expenses; development expenses; cost saving expenses; advertising expenses; obsolescence deferred; extraordinary expenses, and losses, should be regarded as investments of surplus earnings left in the business and like amounts appropriated from surplus wherever the sums are of importance. Such expenses as these almost always mean that current liabilities have been created, and it must be realized that current liabilities cannot be liquidated out of deferred charges such as these.

As such deferred charges are amortized or written off into the expenses, like amounts of working capital are withheld in the business, and it would be in order to release a similar amount from any surplus appropriated to cover. Surplus appropriated to cover deferred charges represents a part of the net worth of the business and should be included in computing the stockholders' investment.

Surplus arising out of revaluation of properties may mean either:

1—Surplus created by reinstatement of values previously written off.

2—Surplus arising out of enhancement in values of properties.

In the first case, where the revaluation is the reinstatement of values previously written off through excessive depreciation or writing off of replacements, additions, and betterments, etc., the surplus arising from such a revaluation may be free surplus in that the writing off of values in previous periods withheld working capital funds in the business.

On the other hand, these revaluations will usually represent the accumulation of years and may be very large in proportion to the Surplus account carried by the company. Considering such an adjustment free surplus, distribution in the form of cash dividends might mean serious impairment of the working capital of the company. It is more likely that surplus arising from such revaluation will really represent surplus earnings invested in fixed properties which should not be considered free surplus, except as such additions to fixed properties are permanently financed.

Surplus arising out of revaluation which simply recognizes enhancement in values of properties or higher replacement values, is not free surplus in any sense of the word. It is simply capital surplus and should be treated in such a manner as to insure the business against withdrawals of working capital funds through it.

Any surplus arising out of revaluation of fixed properties is a part of the net worth or stockholders' investment, and should be included in the net worth section of the balance sheet, being stated here as appropriated or invested surplus, as the case may be.

Surplus Arising Out of Revaluation of Other Fixed Investments

Surplus arising out of revaluation of other fixed investments might include revaluation of intangible fixed investments, revaluation of permanent investments in securities, or stocks of other companies. Surplus created by revaluation of intangible fixed investments must not be considered free surplus; it is capital surplus and the working capital of the business should be protected from possible withdrawals through it.

The revaluation of investments in other companies may arise through revaluation of properties and investments of the subsidiaries or affiliated companies. Such surplus is to the holding company the same character of an item as it is to the subsidiary company. Revaluation of properties of a subsidiary company, resulting in a surplus credit, will affect and increase the investment carried by the holding company. While such surplus is almost

always capital surplus, it may be appropriated to extinguish any good-will element which appears in the holding company's investment in such subsidiary, especially that portion of the revaluation which may be allocated to years prior to the purchase of the control in such subsidiary company.

Surplus Arising Out of Premiums on Capital Stock

Where capital stock is sold at a price in excess of its par value, the premium above the par value represents paid-in surplus. It is a part of the stockholders' investment in the same degree that the par value represents stockholders' investment.

Premiums on capital stock differ from premiums on bonds in that the premium on stock is a permanent investment of the stockholders and it is capital surplus paid in. The premium received on bonds is an adjustment of the interest which the business is to pay for the use of such borrowed funds and, as such, should be written off over the period of the bond issue. Surplus arising out of premiums on stock should be set out separately as paid-in surplus or capital surplus.

Dividends may not properly be paid out of surplus arising out of premiums on capital stock, for that would result in an impairment of the stockholders' original investment.

Surplus arising out of premiums on capital stock is a part of the net worth or stockholders' investment, and should be included in computing the book value of the stock.

Such surplus should not be considered as taking the place of a reserve for bond retirement, or an appropriation to cover investments in fixed properties, or any other appropriation from surplus to cover permanent investments made out of the working capital funds.

Surplus Arising Out of Donated Treasury Stock

Where stock once issued and outstanding is donated back to the company for the purpose of resale, to supply added working capital or other capital necessary to the business, a donated or capital surplus item is created. The amount of donated surplus is the sum which is realized on the resale of the donated treasury stock. Such donated treasury stock is usually sold at a figure somewhat different from par. If donated surplus is written into the accounts, as the stock is received, to the amount of the par value of the stock, then any discount suffered upon the resale of the stock must be considered as an offset against this Donated Surplus account. The amount which the company receives is the net amount ultimately realized on the resale of such stock.

If donated treasury stock is to be promptly disposed of and the approximate price which it will realize can be determined, there would be considerable justification for entering it into the accounts as a charge to treasury stock and a credit to surplus arising out of the donated treasury stock, at such prices. In such case later, when the stock is finally sold, any minor adjustments necessary may be made in the Donated Surplus account.

If the immediate purpose of the donation is to create a surplus account and avoid the necessity of showing a deficit or impairment of capital, several questions arise for consideration, among them:

1—Valuation to be placed on the stock.

2—Treatment of such surplus.

3—Statement of the treasury stock in balance sheet.

Presumably such donated stock will be valued at par on the ground that it is in effect a reduction in the outstanding capital to the amount of its par value, and credit will therefore be taken in surplus for an equal amount.

Such an adjustment, of course, has no effect on the net worth of the company, or the amount of that class of stockholders' investment in the business, but it does enhance the book value of the outstanding shares. The investment supporting this class of stock issues in total remains unchanged. There is less stock, but the surplus account has been increased by the same amount. The only effect is to raise the average investment per share, thus increasing the book value of each outstanding share of that class. Surplus arising out of such capital stock donations is purely capital surplus. It should not be confused with earned surplus.

In stating a balance sheet, donated treasury stock entered at par values must be considered as a reduction in the outstanding capital stock. It is treasury stock only in the sense that it is not outstanding. It is not an investment of the business, but simply a reduction in the amount of outstanding stock. To treat such donated treasury stock as an asset or investment, would inflate the net worth of the business as shown by its balance sheet by the amount of such donated surplus. This is not the effect of the transaction. The transaction does not increase the net worth of the business—it simply adjusts the accounts representing that worth as between capital and surplus.

If, in after periods, donated treasury stock is again sold, the proceeds represent increased stockholders' investments, and increase the net worth of the business. The amount of such increase in the net worth or stockholders' investment is the proceeds from the sale of the stock, and if it is sold at less than par value, the discount must be considered an adjustment of the capital arising out of the stock donation.

Surplus Arising Out of Sale of Fixed Property Investments

Surplus arising out of the sale of fixed property investments is usually considered capital surplus as resulting from gains or profits other than those earned in the ordinary course of business. In this sense it is capital surplus, but if the funds represented by this surplus are left in the working capital of the business, such profits finally realized are in reality as much free surplus as any other earnings finally realized and left in the business. It may be better, as a matter of policy, in handling such surplus in any certain circumstance, to consider it working capital surplus, not because of the character of the item, but rather because of other circumstances, particularly the working capital position of the business.

Such surplus is in reality the result of capital profits as distinguished from profits arising out of earnings realized in the ordinary course of business. Cash dividend disbursements out of such capital profits should be distinguished as extraordinary dividend distributions. Stock dividends declared out of such surplus should be made only after consideration of the added permanent financial burdens which are placed on the future operations of the business.

Insurance Reserves

Some business organizations, having widely distributed properties, carry some of their own insurance risks for the reason that the cost of insurance of properties in outside insurance companies would amount to more than any possible loss at any one place. The wisdom of this depends entirely on the class of business, how the properties are distributed, and what the possible loss in any one risk might be.

There is little to be said in a general way about the advisability of a concern carrying its own insurance, for that is a matter dependent entirely upon local conditions. Obviously the firm should carry on its own insurance only on preferred risks. This is merely a matter of conservatism. Hazardous risks, either because of the type of property or operations conducted therein, or because of adjacent properties or operations, are generally much better covered by outside insurance.

Where an organization assumes some of its own insurance risks, it should include in its expenses and costs of operation a charge for insurance at the regular rates which would prevail if the risks were carried by outside insurance companies, setting up this amount as an insurance reserve against possible future losses. This is desirable, not only from the point of view of figuring costs on a competitive basis, but also to provide a reserve to absorb any losses which may occur.

Setting up an insurance reserve, however, performs only a part of the function of insurance carried in outside companies. It does protect the surplus account of the company against losses, but does

not furnish the ready capital to cover the loss as would be the case with the outside insurance company. Hence, there is also to be considered the matter of insurance funds to support the insurance reserves and to provide necessary liquid capital to cover losses in case they occur. This would contemplate paying out of the working capital the insurance premiums that would be paid to an outside company, and setting these premiums aside in a fund and investing them in readily realizable securities, so that in case of a loss the concern is protected, not only as to Surplus account, but as to its working capital as well.

A method by which this may be accomplished is to create an investment fund and set up an Insurance Reserve account. The amount of regular insurance premiums would then be set aside in the fund each period and a like amount set up in the reserves by charging expenses. Such a fund and Reserve account would operate along lines similar to the bond sinking fund and Bond Sinking Fund Reserve account.

Earnings on the insurance fund investments might also be considered as accretions to the fund and credited to the Reserve account. In this manner the cost of operations of the company would include insurance charges on the same basis as if insurance were carried in outside companies, and the organization would be building up a fund to protect its working capital and a reserve to protect its surplus against possible loss.

After such a reserve fund has been in operation for a period of years, if losses have been few, the fund and reserve will build up to a point sufficient to cover possible losses, and there will be an element of profit. The amounts which should be carried from time to time will depend upon local conditions but should not be reduced below the amount of reserve which an insurance company would be required to carry under similar circumstances.

Insurance reserves are a part of the net worth of the business for they would accrue to the benefit of the stockholders in case of liquidation. There is no obligation to provide out of profits for contingencies that may occur in the future. Such reserves are voluntary and an evidence of conservatism, and represent a part of the net worth of the business.

Reserves Against Decline in Inventory Prices

Reserves against decline in inventory prices are contingent reserves in the sense that there may be no obligation to provide against losses which may possibly be incurred in the future. If the price declines have already occurred, obviously they should be recognized on the basis used in stating the inventory. These reserves should cover only possible future losses due to declines in prices. The wisdom of providing reserves for such losses is now painfully apparent. We can all look back over the past few years and readily realize that the profits of war years were in a substantial measure the result of inflation. We know now that these profits should not have been considered as finally realized profits. The losses sustained as prices fell were simply the relinquishment of some of the profits that were recorded during the periods of inflation and in this sense may be considered as an offset against these profits.

Reserves against decline in inventory prices should generally be created out of surplus for the reason that the profits which they are intended to offset were realized in previous years, and were passed into the Surplus account. These reserves should not be considered as a deduction from the inventory values in the current assets section of the balance sheet, as it is presumed that inventories have been valued on a conservative basis, cost or market, whichever is lower. They therefore represent a part of the *present* net worth of the organization.

The advisability of providing for such contingencies is emphasized by the fact that so-called inventory losses are working capital losses. They come directly out of the working capital of the business. Ample provisions should be made against such possible losses in order that the working capital of the company may not be impaired as it would if such losses were incurred and no reservation of surplus had been made.

Reserves for Contingencies

Any other reserves for contingencies which are provided for voluntarily to protect the company against possible losses occurring in the future, represent a part of the present net worth or general surplus of the company.

While there may be no obligation to provide out of present profits for future contingencies, the advisability of a conservative policy in this connection should not be questioned. It is especially desirable when we consider such reserves for contingencies as a part of the general surplus of the business, merely setting it aside to protect the company against expenditures out of surplus earnings which might result in an impaired working capital position if these contingencies are realized.

Contingency reserves as here mentioned are not intended to cover necessary reserves—such as for depreciation, depletion, bad debts, the reduction of inventory values to market, losses and expenses incurred but not accurately determinable in money value. Nor, on the other hand, should they be taken to cover voluntary reserves set up—such as insurance reserves, earnings invested in fixed properties, earnings otherwise permanently invested, bond sinking fund reserves. For it must be borne in mind that if any of these reserves are necessary to protect the working capital position of the company against further withdrawals through Surplus account, then these reserves cannot be considered available to meet other contingencies, for this might mean a double withdrawal.

Open Undervaluation of Assets

To overvalue, knowingly, the profits, or overstate the financial position of a business, is a practice which cannot be too severely condemned. This proposition is universally recognized among business men and accountants.

The opposite proposition, undervaluation of profits or understatement of the financial position of a business, occurs occasionally. Such understatement of financial position of a business may be accomplished in a manner apparent on the face of the balance sheet or by methods not disclosed on the face of the financial statement, which would not, in this latter case, indicate the understatement of financial position.

An open understatement of the financial position of a company is usually found in an undervaluation of known assets, such as the carrying of good-will, patents, franchises, etc., at no value or at a nominal value, or carrying furniture and fixtures and other tangible assets at $1 or other nominal value. Also, an overstatement of reserves might be apparent on the balance sheet. Carrying investments at value which are under market, and indicating market values on the face of the balance sheet, etc., also indicates an understatement, but one of a very open nature.

While it may be said in a general way that the balance sheet should reflect a full and true valuation of the assets and liabilities and net worth of a concern, such open understatements cannot be condemned, as they usually represent prudent foresight and conservative policies, the benefits of which are to the corporation and its stockholders beyond question.

Concealed Undervaluation of Assets

On the other hand, a concealed understatement of financial condition should be given careful consideration. These understatements are generally termed secret reserves and may take several forms, such as writing down of valuable assets to a small figure, providing excessive depreciation, depletion, bad debts or contingency reserves, valuing of inventories at much less than cost or market, or including special or excessive reserves for contingencies among liabilities. As many industrial organizations do not publish income statements showing their gross earnings, such reserves may readily be made in such form as not to be apparent in any way in the published accounts, and therefore would be known only to the officers and

(*Continued on page* 64)

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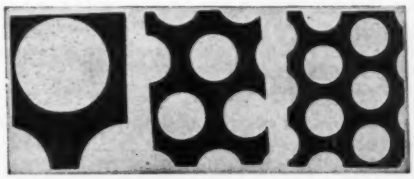

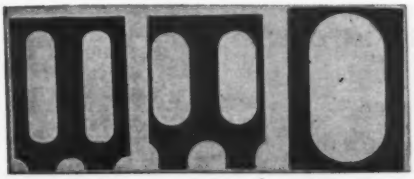

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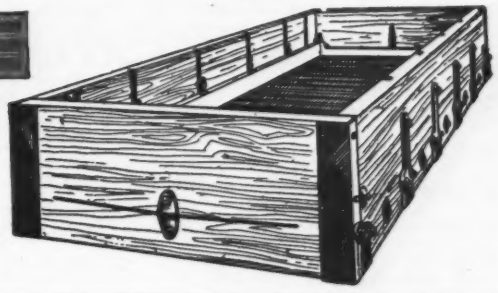

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NEW YORK IMPORTS

WEEK ENDING AUGUST 23, 1924

SUMMARY

News print.....673 rolls
Printing paper.....107 cs., 46 bls.
Wallpaper.....761 bls., 13 cs.
Filter paper.....68 bls., 20 cs.
Packing paper.....1229 rolls, 685 cs.
Wrapping paper.....108 rolls, 14 cs.
Drawing paper.....5 cs.
Cigarette paper.....2,829 cs.
Surface-coated paper.....182 cs.
Writing paper.....82 cs.
Colored paper.....31 cs.
Cardboard paper.....2 cs.
Tissue paper.....1 cs.
Photo paper.....2 cs.
Cellophone paper.....4 cs.
Kraft paper.....13 bls.
Metal paper.....23 cs.
Miscellaneous paper.....17 cs.

CIGARETTE PAPER

American Tobacco Co., Sarcoxie, Bordeaux, 850 cs.
R. J. Reynolds Tobacco Co., Sarcoxie, St. Nazaire, 1,590 cs.
De Manduit Paper Co., by same, 336 cs.
P. J. Schweitzer, France, Havre, 43 cs.
Standard Products Corp., Indep. Hall, Havre, 10 cs.

WALLPAPER

F. J. Emmerich, Celtic, Liverpool, 2 bls.
Thomas & Pierson, American Trader, London, 1 cs.
The Prager Co., Veendam, Rotterdam, 469 bls.
J. W. Hampton, Jr., & Co., by same, 290 bls.
Whiting & Patterson, Aquitania, Southampton, 11 cs.
F. J. Emmerich, A. Ballin, Hamburg, 1 cs.

WRAPPING PAPER

Saentis, Inc., A. Ballin, Hamburg, 34 rolls.
Chase National Bank, by same, 74 rolls.
Import Paper Co., Veendam, Rotterdam, 14 cs.

PACKING PAPER

M. O'Meara Co., Eglantine, Rotterdam, 1,229 rolls.
F. C. Strype, Veendam, Rotterdam, 7 cs.
Steiner Paper Co., by same, 18 cs.
J. P. Heffernan Paper Co., A. Ballin, Hamburg, 660 rolls.

PRINTING PAPER

Falsing Paper Co., A. Ballin, Hamburg, 30 cs.
P. C. Zuhlke, Nevisian, Antwerp, 20 cs.
F. C. Strype, Veendam, Rotterdam, 2 cs.
C. Steiner, Legie, Hamburg, 26 bls.
Traders Paper Co., by same, 20 bls.
P. C. Zuhlke, Zeeland, Antwerp, 52 cs.
P. Puttmann, by same, 3 cs.

NEWS PRINT

M. Gottesmann & Co., Inc., Oscar II, Copenhagen, 128 rolls.
Drinhausen, Hallkott Paper Co., Legie, Hamburg, 100 rolls.
Chemical National Bank, by same, 445 rolls.

DRAWING PAPER

Devoe-Reynolds, Minnewaska, London, 3 cs.
H. Reeve Angel & Co., Inc., Aquitania, Southampton, 2 cs.

FILTER PAPER

H. Reeve Angel & Co., Inc., Minnewaska, London, 20 cs.
J. Manheimer, Olympic, Bordeaux, 68 bls.

TISSUE PAPER

F. C. Strype, Celtic, Liverpool, 1 cs.

PHOTO PAPER

J. J. Gavin, Celtic, Liverpool, 2 cs.

WRITING PAPER

E. Dietzgen & Co., Canada, Marseilles, 38 cs.
F. C. Strype, Veendam, Rotterdam, 6 cs.
E. Dietzgen & Co., Patria, Marseilles, 38 cs.

SURFACE COATED PAPER

P. C. Zuhlke, Nevisian, Antwerp, 107 cs.
Gevaert Co. of America, by same, 60 cs.
P. Puttmann, Zeeland, Antwerp, 6 cs.
Gevaert Co. of America, by same, 9 cs.

COLORED PAPER

Borden, Riley Paper Co, Zeeland, Antwerp, 19 cs.
C. W. Williams, Nevisian, Antwerp, 12 cs.

CELLOPHANE PAPER

Du Pont Cellophane Co., Olympic, Havre, 4 cs.

CARDBOARD PAPER

F. C. Strype, Veendam, Rotterdam, 2 cs.

KRAFT PAPER

M. O'Meara Co., Legie, Hamburg, 13 bls.

METAL PAPER

Hensel, Bruckman & Lorbacher, Legie, Hamburg, 23 cs.

PAPER

Tamm & Co., Legie, Hamburg, 3 cs.
Importers Metal Leaf & Bronze Powder Co., Columbus, Bremen, 3 cs.
Keuffel & Esser, Scythia, Liverpool, 2 cs.
Globe Shipping Co., Olympic, Paris, 9 cs.

RAGS AND BAGGING, ETC.

E. J. Keller Co,. Inc., Oscar II, Copenhagen, 598 bls. rags.
Castleton & Overton, by same, 379 bls. baggings.
E. J. Keller Co., Inc., Eglantine, Rotterdam, 328 bls. rags.
A. W. Fenton, Inc., by same, 1,000 bls. rags.
Katzenstein & Keene, Inc., by same, 415 bls. rags.
Albion Trading Co., Sarcoxie, Bordeaux, 155 bls. rags.
P. Berlowitz, by same, 275 bls. rags.
Whaling Waste Products Co., by same, 217 bls. rags.
G. M. Graves Co., Inc., Veendam, Rotterdam, 238 bls. rags.
Castle & Overton, by same, 40 bls. rags.
E. J. Keller Co., Inc., by same, 333 bls. rags.
Chemical National Bank, by same, 44 bls. rags.
Chemical National Bank, by same, 93 bls. baggings.
P. Berlowitz, by same, 84 bls. rags.
D. M. Hicks, by same, 35 bls. rags.
R. F. Downing & Co., Inc., by same, 434 bls. rags.
R. F. Downing & Co., Inc., by same, 210 bales baggings.
E. J. Keller Co., Inc., Legie, Hamburg, 150 bls. rag pulp.
International Acceptance Bank, by same, 147 bls. rags.
Salomon Bros. & Co., by same, 33 bls. rags.
R. Bishop Manufacturing Co., Indep. Hall, Dunkirk, 191 bls. rags.
M. O'Meara Co., by same, 75 bls. paper stock.
Albion Trading Co., Indep. Hall, Havre, 784 bls. rags.
Katzenstein & Keene, Inc., by same, 89 bls. rags.
Guaranty Trust Co., A. Ballin, Hamburg, 205 bls. rags.
L. H. Abenheimer, by same, 195 bls. rags.
Equitable Trust Co., by same, 31 bls. rags.
National City Bank, by same, 161 bls. rags.
S. Birkenstein & Sons, by same, 97 bls. cottons.
Castle & Overton, Kepwick Hall, Barcelona, 30 bls. new cuttings.
E. J. Keller Co., Inc., Volendam, Rotterdam, 20 bls. rags.

OLD ROPE

G. M. Graves Co., Inc., Minnewaska, London, 109 coils.
E. J. Keller Co., Inc., Oscar II, Copenhagen, 39 coils.
Brown Bros. & Co., by same, 75 coils.
Brown Bros. & Co., A. Ballin, Hamburg, 18 coils.
W. Schall & Co., by same, 29 coils.
E. J. Keller Co., Inc., Legie, Hamburg, 71 coils.
Brown Bros. & Co., Veendam, Rotterdam, 77 coils.

WOOD FLOUR

B. L. Soberski, Oscar II, Copenhagen, 2,250 bags.

CASEIN

National City Bank, Commack, Buenos Aires, 847 bags, 50,820 kilos.
T. M. Duche & Sons, by same, 417 bags, 55,159 lbs.

CHINA CLAY

International Ultramarine Works, Aden Maru, Hamburg, 32 bags.

PHILADELPHIA IMPORTS

WEEK ENDING AUGUST 23, 1924

E. J. Keller Co., Inc., Sarcoxie, St. Nazaire, 209 bls. rags.
Castle & Overton, Sarcoxie, Bordeaux, 557 bls. rags.
Katzenstein & Keene, Inc., by same, 183 bls. rags.
McBlaine & Co., Indep. Hall, Dunkirk, 10 bls. rags.
Castle & Overton, by same, 210 bls. rags.
Castle & Overton, Indep. Hall, Havre, 74 bls. rags.
D. J. Murphy, by same, 340 bls. rags.
J. J. Patricoff, by same, 41 bls. rags.
Katzenstein & Keene, Inc., by same, 62 bls. rags.
Leshner Paperstock Co., by same, 531 bls. rags.
Castle & Overton, Segund, Marseilles, 123 bls. rags.
Castle & Overton, W. Lashaway, Leghorn, 194 bls. rags.
Castle & Overton, Manchester Mariner, Manchester, 63 bls. rags.
Castle & Overton, by same, 66 bls. new cuttings.
Castle & Overton, Harnfels, Bremen, 177 bls. rags.
Castle & Overton, Fenchurch, Barcelona, 54 bls. new cuttings.
E. J. Keller Co., Inc., by same, 112 bls. rags.
E. J. Keller Co., Cabo Hatteras, Marseilles, 59 bls. rags.
E. J. Keller Co., Inc., Hornfels, Bremen, 119 bls. rags.
E. J. Keller Co., Inc., Belgian, Antwerp, 231 bls. wood pulp.

BOSTON IMPORTS

WEEK ENDING AUGUST 23, 1924

The Anglo-South American Trust Co., N. Y., Westerner, Antwerp and London, 75 bls. old rope and strings.
The Anglo-South American Trust Co., N. Y., by same, 75 bls. old rope and strings.
Edw. Butterworth Co., Boston, by same, 55 bls. cotton tares.
Castle & Overton, New York, by same, 892 bls. wood pulp.
Philadelphia National Bank, by same, 25 bls. packing paper.
National Bank of Commerce, Philadelphia, by same, 54 coils old rope.
National Bank of Norfolk, Va., by same, 175 bls. bagging.
British American Tobacco Co., Petersburg, Va., by same, 50 cs. printed cigarette papers.
Second National Bank, Fluer Spar, London, 72 coils old rope, 152 bales old rags.
Brown Bros. Co., by same, 78 coils old rope.
Crocker Burbank, Fitchburg, Mass., by same, 120 bales waste paper.
Philadelphia National Bank, by same, 56 bales old rags.
International Acceptance Bank, Inc., Sinasta, Bremen and Hamburg, 77 rolls paper.
Geo. M. Graves Co., Boston, by same, 362 bales cotton rags.
Maurice O'Meara Co., N. Y., by same, 31 bales cotton rags.
H. Hollesen Co., Inc., by same, 986 bales wood pulp.
Baring Bros. & Co., by same, 162 bales old rags.
On order, by same, 358 rolls paper.
On order, by same, 14 bales paper.
On order, by same, 75 rolls paper.
On order, by same, 125 bales wood pulp.
Chemical National Bank of N. Y., by same, 317 rolls paper, 40 bales paper.
Second National Bank of Boston, by same, 78 bales rags.

(*Continued on page 64*)

The Home of Quality

FACTORY
132ND TO 133RD ST. & BROOK AVE

PAPER BAGS and SACKS

GLASSINE BAGS—SPECIALTIES

Operating a Modern Printing Plant

SCHORSCH & CO.

Manufacturers *Established 1901*

500 East 133d Street . New York

This Registered Trade Mark Octagon

on a Paper Bag vouches for Its Good Quality

The
St. Regis Paper Company
and the
Hanna Paper Corporation

Daily Capacity, 425 Tons

Newsprint
Butchers' Manila
Packers' Oiled Manila
Jute Container Board
Ground Wood and Unbleached Sulphite

Manufacturers of
TARZAN Fibre Shipping Cases

General Sales Offices:
30 East 42nd St. New York
CHICAGO **PITTSBURGH**
620 McCormick Bldg. 1117 Farmers Bank Bldg.

THE WORLD'S LARGEST PACKERS

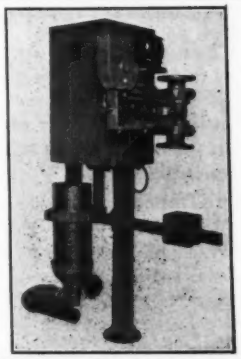
ANY GRADE QUANTITY

RAGS

and

Paper Stock

GUMBINSKY BROS. CO.
UNION & LUMBER STREETS
CHICAGO, ILL.



When your competitor had variations in QUALITY and WEIGHTS
He bought
TRIMBEY AUTOMATIC CONSISTENCY REGULATORS
For ALL of his Machines.

Why don't YOU try one? *Ask us about them.*

Also "Made in Canada"

TRIMBEY MACHINE WORKS, Glens Falls, N. Y.

Imports of Paper and Paper Stock

(*Continued from page 62*)

Atterbury Bros., Inc., Commack, Buenos Aires, 250 bags, 10,000 kilos casein.

First National Bank of Boston, by same, 1,145 bags, 68,700 kilos casein.

National City Bank, by same, 847 bags, 50,820 kilos casein.

T. M. Duche & Sons, by same, 834 bags, 110,318 lbs. casein.

Katzenstein & Keene, Inc., Nevisian, Antwerp, 114 bls. rags.

E. J. Keller Co., Inc., Sinasta, Hamburg, 74 bls. rags.

E. J. Keller Co., Inc., Belgian, Antwerp, 229 bls. wood pulp.

C. H. Simonds, Sinasta, Bremen and Hamburg, 9 cases paper.

H. Hollesen Co., by same, 200 bales wood pulp.

Bendix Paper Co., by same, 112 bales wood pulp, 21 cases wallpaper.

Charles G. Keferstein, by same, 74 reels paper, Baltimore.

Chemical National Bank of New York, by same, 207 reels paper, Baltimore.

Ira L. Beebe & Co., by same, 2,391 bales wood pulp, Baltimore.

Castle & Overton, by same, 1,375 bales wood pulp.

Howell, Donaldson, Inc., by same, 1,900 bales wood pulp.

BALTIMORE IMPORTS

WEEK ENDING AUGUST 23, 1924

E. J. Keller Co., Inc., Amassia, Hamburg, 150 bls. rag pulp.

C. K. MacAlpine Co., Virginia, Copenhagen, 182 bls. wrapping paper.

Castle & Overton, Hornfels, Bremen, 2 bls. wood pulp.

Johaneson, Wales & Sparre, Inc., Tanafjord, Kranfors, 1,229 tons kraft pulp, 225 tons sulphite pulp.

Lagerloef Trading Co., Hornfels, 200 tons chemical pulp.

NEW ORLEANS IMPORTS

WEEK ENDING AUGUST 23, 1924

E. J. Keller Co., Inc., Emergency Aid, Rotterdam, 355 bls. baggings.

Castle & Overton, W. Chotac, Barcelona, 246 bls. baggings.

Castle & Overton, W. Tacook, Bremen, 303 bls. rags.

Castle & Overton, Karlhaus, Hamburg, 91 bls. rags.

PROTECTION OF WORKING CAPITAL

(*Continued from page 60*)

directors who are familiar with the details of the business.

While in a general way the creation of secret reserves may be condemned, each case must be judged on its own merits, and such judgment will oftentimes depend upon the motives underlying the creation of such reserves.

Arthur Lowes Dickinson writes in "Accounting Practice and Procedure":

"Where the directors or managers have exercised wise discretion in providing in advance for contingent losses incident to the nature of the business, which cannot from a reasonable point of view be considered in excess of the amount which a wise foresight would provide, it would seem that no exception should be taken to the undisclosed provision thereof. This would apply particularly to cases in which the business conducted was of a fluctuating or speculative character, or in which its success was largely dependent on the maintenance of very high credit, such as a bank. . . . . In all such cases the sudden disclosures of heavy deficits or losses, which are clearly incident to the nature of the business but only occur at irregular intervals, may easily be disastrous to the interests of the stockholders by unduly depressing the market price of the capital stock, and it would seem to be not only the right but the duty of directors to protect them against such contingencies by making ample secret reserves when profits permit. Where, however, reserves are made largely in excess of any possible contingencies, the amounts provided should be disclosed to the profit and loss account and probably also in the balance sheet so that all those interested may be in a position to form a reasonably correct opinion as to the financial position."

This was written before 1914. In the light of happenings of the last six or eight years, the reasonableness and sound business policy of this quotation cannot be questioned. It is true that the creation of secret reserves through improper motives, such as the desire to freeze out minority stockholders, must be condemned. Further, the creation of excessive secret reserves cannot be considered other than improper, but beyond this it is a responsibility of the directors and executives of an organization to protect the interests of the stockholders of their organization. If they, who are in a position to know the most about the affairs of a business realize the uncertainty of the future, and in good faith provide against possible contingencies which would affect the interest of their stockholders unfavorably, it seems they would have only done their duty. The best interest of a stockholder is found in a stable investment unaffected by unwarranted speculation or extraordinary losses.

Many industries are subject to periods of unfavorable business and practically every business in the last few years has been affected to a greater or less degree by war-time and reconstruction conditions. A policy, the purpose of which is to protect the best interest of the stockholders, assuring the stability of their investment, and the continuance of the business in good financial condition, should be commended.

From the legal point of view there can be objections to borrowing funds for the purpose of paying dividends if the dividend is a legal one. It often happens that the concern has made ample profits, but at the time a dividend payment is to be made does not have the liquid funds to spare.

The question is often one of the determination of free surplus If earnings of a company have been tied up in permanent investments, as plant and equipment and other fixed investments, while there may be ample surplus for the payment of dividends, such a disbursement might mean a double withdrawal out of the working capital funds of the business.

Borrowing on short terms to pay such dividends does not improve the conditions, for had the working capital in the business been properly protected through financing to cover permanent investments in plant and other fixed assets, or surplus earnings appropriated to cover these investments, there would have been on hand ample working capital to meet the dividend requirements.

Nor is the payment of these dividends in scrip, as is sometimes done, always satisfactory. Usually such issuance is due to the fact that the company has tied up its earnings in permanent investments, or in the retirement of long-term liabilities, or perhaps it may be due to expansion with the result that the funds have been used or are needed in the business.

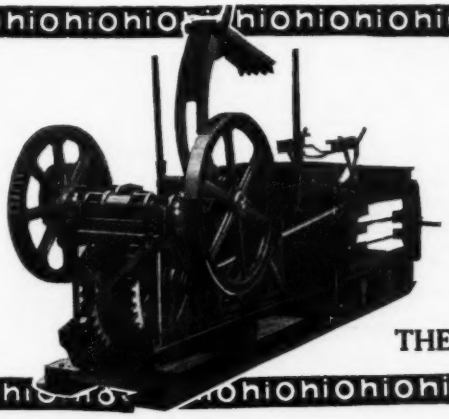
The scrip then ordinarily takes the form of a short-term promise to pay and in such case is only the substitution of scrip liability for a dividend liability—a change in form but not in effect. The expediency of such a substitution must, of course, be judged in the light of the conditions. Unless some new financing is contemplated, or funds will be released in some way, to provide for the scrip redemption, its issuance would seem of doubtful wisdom.

It must be realized that earnings cannot be used to construct buildings and still be available for use in distribution of cash dividends. Current borrowing to pay dividends, except such borrowing as are necessary because of purely temporary conditions, are not a solution of the difficulty.

Inland Paper Board Co. Improvements

VERSAILLES, Conn., August 25, 1924.—The Inland Paper Board Company, is installing complete new power equipment at its plant here consisting of boilers and three engines with necessary buildings in connection with its second machine.

This machine is expected to be on production in the near future. The work is in charge of Karl A. Lefren, consulting engineer, New York City.



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BALING PRESS

The Famous Ohio Baling Press will put scrap in the most salable form whether it is paper, rags, card board, shavings or what not.

THE OHIO CULTIVATOR CO., Bellevue, Ohio

The B Co. INC.
QUALITY PULPS

"HAFSLUND BEAR"
Bleached Sulphite

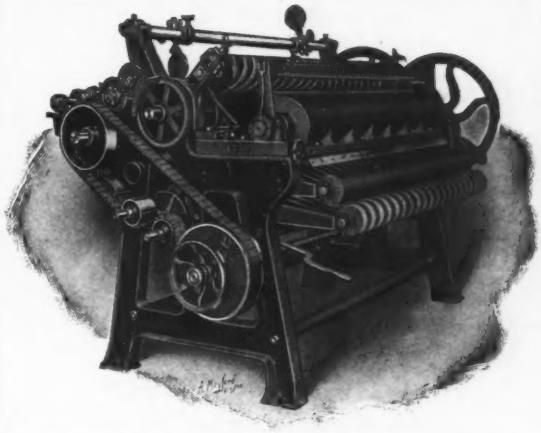
"FORSHAGA"
Bleached Sulphite

"HURUM SPECIAL"
Extra Strong Kraft

"BAMBLE"
Extra Strong Kraft

The Borregaard Company
Incorporated
200 FIFTH AVENUE NEW YORK, N. Y.

Paper Cutters
Single, Duplex and Diagonal



Cutter Knives Patent Top Slitters

HAMBLET MACHINE CO.
LAWRENCE, MASS.

Paper that Passes the Keenest Inspection —is the paper made with the aid of our TYPE "B" IRON EXTRACTOR. This device removes not only the iron from the paper stock but other foreign substances. It never fails to satisfy in obtaining 100% perfect results, its low cost of operation, its compactness, etc., are factors that have placed this device in over one hundred paper mills throughout the country. Write us for complete details.

THE ROLAND T. OAKES CO.
Established 1885
HOLYOKE, MASS.
Electrical Specialists

Market Quotations

PAPER SECURITIES CLOSING PRICES TUESDAY

Reported by Stewart Tuttle & Co., Inc., 120 Broadway, New York

Stocks	BID	ASKED
Abitibi Power and Paper Company, Ltd.	59¼	60
Abitibi Power and Paper Company, Ltd, Pfd.	99¾	101
American Writing Paper Company, Pfd.	3½	4
Brompton Pulp and Paper Company, Ltd.	34½	35
Donnacona Paper Company, Ltd.	45	50
Donnacona Paper Company, Ltd., Pfd.	98	100
International Paper Company	47½	48
International Paper Company, Pfd.	72½	74
Laurentide Company, Ltd.	88⅞	89
Price Brothers	44	44¾
St. Maurice Paper Co., Ltd.	91	92
Smith (Howard) Paper Mills, Ltd.	38	39
Spanish River Pulp and Paper Mills, Ltd.	110¾	110¾
Spanish River Pulp and Paper Mills, Ltd., Pfd.	118¾	119
Union Bag and Paper Corp.	48	49
Wayagamack Pulp and Paper Company, Ltd.	35	37
West Virginia Pulp and Paper Company	50	54

Bonds	BID	ASKED
Abitibi Power and Paper Company, Ltd., 1st 6s, 1934..	102	103
Abitibi Power and Paper Company, Ltd., Gen. 6s 1940..	94½	95½
Abitibi Power and Paper Company, Ltd., Con. 8s 1931..	102½	103½
Belgo Canadian Paper Company, 1st 6s 1943	94½	95¼
Brown Company Serial 6s	99	100
Carthage Sulphite Pulp and Paper Company, 1st 8s 1941	35	50
Continental Paper and Bag Mills Corporation, 1st and Ref. 6½s, Series "A," 1944	94	95
Donnacona Paper Company, Ltd., 1st 6s 1940	98	100
Eddy Paper Company, 1st 7½s 1931	93	95
Gair (Robert) Company, 1st 7s 1937	98½	99½
International Paper Company, 1st and Ref. 5s (Series "B") 1947	84	85
Mattagami Pulp and Paper Company, 1st 6s 1937	58	60
Mattagami Pulp and Paper Company, 1st 7s 1949	20	25
Oswego Falls Corporation, 1st 8s 1942	101½	102
Oxford Paper Company, 1st and Ref. 6s (Series "A") 1947	98	100
Parker, Young Company, 1st 6½s 1944	95½	97½
Paterson Parchment Paper Company, 1st 6s (Series "A") 1938	95	96
Peshtigo Paper Company, 1st 7s (Series "B") 1942	92	94½
Price Bros. & Co., Ltd., 1st 6s (Series "A") 1943	98¼	99¼
Provincial Paper Mills, Ltd., 1st 6s 1940	98	100
Riordon Pulp and Paper Company, Ltd., Gen. 6s 1929..	14	18
Riordon Pulp and Paper Company, Ltd., 6s 1942	80	84
Riordon Company, Ltd., 1st and Ref. 8s 1940	87½	88½
River Raisin Paper Company, 1st 8s 1936	103	104
Smith (Howard) Paper Mills, Ltd., 6s 1934	95	95½
Smith (Howard) Paper Mills, Ltd., 1st Ref. 7s 1941..	94½	96½
Spanish River Pulp and Paper Mills, Ltd., 1st 6s 1931..	102½	104
Spanish River Pulp and Paper Mills, Ltd., Gen. 8s 1941	106	107
Wayagamack Pulp and Paper Company, Ltd., 1st 6s 1951	74	77

Paper

F. o. b. Mill

Ledgers	11.00	@38.00
Bonds	9.00	@45.00
Writings—		
Extra Superfine	14.00	@30.00
Superfine	14.00	@30.00
Tub Sized	10.00	@15.00
Engine Sized	8.00	@11.00
News—		
Rolls, contract	3.65	@ 3.90
Rolls, transit	3.75	@ 4.25
Sheets	4.15	@ 4.40
Side Runs	3.25	@ 1.50
Book, Cased—		
S. & S. C.	8.00	@ 9.50
M. F.	7.50	@ 8.85
Coated and Enamel	9.00	@14.00
Lithograph	9.00	@14.00
Tissues—		
White No. 1	.75	@ .76
White No. 2	.70	@ .80
Colored	1.05	@ 1.90
Anti-Tarnish	1.35	@ 1.90
Kraft	.85	@ 1.10
Manila	.75	@ .80
Kraft—		
No. 1 Domestic	5.50	@ 6.25
No. 2 Domestic	5.00	@ 5.75
Imported	5.50	@ 5.75
Manila—		
No. 1 Jute	9.00	@
No. 2 Jute	7.75	@ 8.30
No. 1 W'ood	4.75	@ 5.25
No. 2 Wood	4.00	@ 4.50
Butchers	3.75	@ 4.00
Fibre Papers—		
No. 1 Fibre	5.50	@ 5.75
No. 2 Fibre	4.75	@ 5.25
Common Bogus	2.40	@ 2.60
S. Screening	3.25	@ 3.75
Cord Middles	1.90	@ 5.00

Boards—per ton—		
News	47.50	@50.00
Straw	50.00	@55.00
Chip	37.50	@42.50
Binders' Boards	75.00	@80.00
Sgl. Mla. Ll. Chip	50.50	@55.50
Wood Pulp	70.00	@75.00
Container	57.50	@65.00
Sulphate Screenings—		
Coarse	.80	@ .90
Refined	1.75	@ 2.00
Ground Wood—		
Screenings	20.00	@25.00
Glassine—		
Bleached, basis 25 lbs.	12.00	@15.00
Bleached, basis 20 lbs.	14.00	@17.00

Mechanical Pulp

(Ex-Dock)

No. 1 Imported	35.00	@40.00
(F. o. b. Mill)		
No. 1 Domestic	27.50	@34.00

Chemical Pulp

(Ex-Dock, Atlantic Ports)

Sulphite (Imported)—		
Bleached	3.75	@ 4.50
Easy Bleaching	2.75	@ 3.25
No. 1 strong unbleached	2.75	@ 3.00
No. 2 strong unbleached	2.50	@ 2.75
No. 1 Kraft	2.50	@ 2.85
Sulphate—		
Bleached	3.50	@ 3.65
(F. o. b. Pulp Mill)		
Sulphite (Domestic)—		
Bleached	3.50	@ 4.50
Easy Bleaching Sulphite	2.60	@ 3.00
News Sulphite	2.40	@ 2.60
Mitscherlich	2.60	@ 3.00
Kraft (Domestic)	2.60	@ 2.85
Soda Bleached	3.90	@ 4.10

Domestic Rags

New Rags

Prices to Mill, f. o. b. N. Y.		
Shirt Cuttings—		
New White, No. 1	13.50	@14.00
New White, No. 2	6.50	@ 7.00
Silesias, No. 1	7.50	@ 8.00
New Unbleached	10.50	@11.00
Washables	5.50	@ 6.15
Fancy	6.50	@ 7.00
Blue Overall	8.00	@ 8.50
New Blue	5.00	@ 5.50
New Black Soft	4.65	@ 5.15
New Light Seconds	3.00	@ 3.25
O. D. Khaki Cuttings	4.50	@ 4.75
Men's Corduroy	4.00	@ 4.25
New Canvas	7.00	@ 7.50
New Black Mixed	2.75	@ 3.00

Old Rags

White, No. 1—		
Repacked	6.25	@ 6.75
Miscellaneous	5.50	@ 5.75
White, No. 2—		
Repacked	4.25	@ 4.50
Miscellaneous	3.75	@ 4.00
St. Soiled, White	2.80	@ 3.00
Thirds and Blues—		
Repacked	3.62½	@ 3.87½
Miscellaneous	2.90	@ 3.15
Black Stockings	3.50	@ 3.75
Roofing Rags—		
Cloth Strippings	1.90	@ 2.00
No. 1	2.40	@ 2.50
No. 2	2.30	@ 2.40
No. 3	1.20	@ 1.30
No. 4	1.20	@ 1.30
No. 5A	1.80	@ 1.50

Foreign Rags

New Light Silesias	7.50	@ 8.75
Light Flannelettes	8.00	@ 8.25
Unbl'chd Cottons	9.00	@ 9.50
New White Cuttings	11.50	@12.50
New Light Oxfords	7.75	@ 8.25
New Light Prints	7.25	@ 7.75
New Mixed Cuttings	3.25	@ 3.75
New Dark Cuttings	3.00	@ 3.50
No. 1 White Linens	9.00	@10.00
No. 2 White Linens	7.00	@ 8.00
No. 3 White Linens	6.00	@ 6.50
No. 4 White Linens	4.50	@ 5.50
Old Extra Light Prints	4.00	@ 4.50
Ord. Light Prints	3.00	@ 3.50
Med. Light Prints	2.40	@ 2.50
Dutch Blue Cottons	3.50	@ 4.00
Ger. Blue Cottons	3.00	@ 3.25
Ger. Blue Linens	3.50	@ 4.00
Checks and Blues	2.25	@ 2.50
Dark Cottons	1.50	@ 1.75
Shoppery	1.40	@ 1.60
French Blues	3.25	@ 3.75

Bagging

Prices to Mill F. o. b. N. Y.

Gunny No. 1—		
Foreign	1.60	@ 1.70
Domestic	1.55	@ 1.65
Wool, Tares, light	1.40	@ 1.50
Wool, Tares, heavy	1.40	@ 1.50
Bright Bagging	1.25	@ 1.40
Sound Bagging	.90	@ 1.00
Manila Rope—		
Foreign	6.25	@ 6.50
Domestic	6.50	@ 6.75
New Bu. Cut	2.40	@ 2.60
Hessian Jute Threads—		
Foreign	2.25	@ 2.50
Domestic	2.10	@ 2.20

Old Waste Papers

(F. o. b. New York)

Shavings—		
Hard, White, No. 1	3.75	@ 4.00
Hard, White, No. 2	3.40	@ 3.60
Soft, White, No. 1	3.00	@ 3.25
Flat Stock—		
Stitchless	1.60	@ 1.70
Over Issue Mag.	1.60	@ 1.70
Solid Flat Book	1.55	@ 1.65
Crumpled No. 1	1.25	@ 1.35
Solid Book Ledger	1.90	@ 2.00
Ledger Stock	1.60	@ 1.70
New B. B. Chips	.50	@ .55
Manilas—		
New Env. Cut	2.45	@ 2.55
New Cut. No. 1	1.65	@ 1.90
Extra No. 1 old	1.40	@ 1.50
Print	1.20	@ 1.30
Container Board	1.00	@ 1.10
Bogus Wrapper	1.00	@ 1.10
Old Krafts Machine compressed bales	2.10	@ 2.20
News—		
No. 1 White News	1.65	@ 1.75
Strictly Overissue	1.05	@ 1.15
Strictly Folded	.95	@ 1.05
No. 1 Mixed Paper	.85	@ .95
Common Paper	.55	@ .65

Twines

Cotton—(F. o. b. Mill)—		
No. 1	.43	@ .48
No. 2	.41	@ .43
No. 3	.40	@ .42
India, No. 6 basis—		
Light	.19	@ .20
Dark	.17	@ .19
B. C., 18 basis	.39	@ .41
A. B. Italian, 18 Basis	.51	@ .61
Finished Jute—		
Dark, 18 basis	.30	@ .31
Light, 18 basis	.28	@ .30
Jute Wrapping, 3-6 Ply—		
No. 1	.20	@ .23
No. 2	.18	@ .20
Tube Rope—		
4-ply and larger	.15	@ .17
Fine Tube Yarn—		
5-ply and larger	.20	@ .28
4-ply	.21	@ .24
3-ply	.22	@ .25
Unfinished India—		
Basis	.14	@ .15
Paper Makers' Twine		
Balls	.12	@ .13
Box Twine, 2-3 ply	.14	@ .15
June Rope	.20	@ .40
Amer. Hemp, 6	.30	@ .32
Sisal Hay Rope—		
No. 1 Basis	.14	@ .16
No. 2 Basis	.10	@ .12
Sisal Lath Yarn—		
No. 1	.14	@ .15
No. 2	.11	@ .13
Manila Rope	.18	@ .19

CHICAGO

[FROM OUR REGULAR CORRESPONDENT]

Paper

F. o. b. Mill

All Rag Bond	35	@ 40
No. 1 Rag Bond	25	@ 35
No. 2 Rag Bond	14	@ 25
Water Marked Sulphite	9	@ 12
Sulphite Bond	7	@ 10¾
Sulphite Ledger	9¾	@ 12
Superfine Writing	18	@ 24
No. 1 Fine Writing	14	@ 18
No. 2 Fine Writing	12	@ 14
No. 3 Fine Writing	9	@ 12
No. 1 M. F. Book	5¾	@ 7½
No. 1 S. & S. C. Book	6¾	@ 7¾
Coated Book	8	@ 10
Coated Label	8	@ 10
News—Rolls, mill	3¾	@ 4½
News—Sheets, mill	4	@ 4¾
No. 1 Manila	4¾	@ 6½
No. 1 Fibre	4¾	@ 5½
No. 2 Manila	3¾	@ 4¼
Butchers' Manila	3¾	@ 4½
No. 1 Kraft	5¾	@ 6¼
No. 2 Kraft	4¾	@ 5
Wood Tag Boards	4½	@ 6
Sulphite Screenings	2¼	@ 2¾
Boards, per ton—		
Plain Chip	$37.50	@42.50
Solid news	40.00	@45.00
Manila Line Chip	52.50	@55.00
Container Lined—		
85 Test	55.00	@60.00
100 Test	60.00	@65.00

Old Papers

F. o. b. Chicago

Shavings—		
No. 1 Hard White	3.25	@ —
White Envel. Cuttings	3.25	@ —
No. 1 Soft Shav.	2.95	@ 3.00
No. 1 Mixed	1.35	@ 1.45
No. 2 Mixed	1.15	@ 1.25
Ledgers and Writings	1.60	@ 1.65
Solid Books	1.55	@ 1.60

No. 1 Books, Light	1.35	@	1:40
Blanks	1.95	@	2.00
Ex. No. 1 Manila	2.00	@	2.10
Manila Envelope Cuttings	2.10	@	2.15
No. 1 Manila	1.25	@	1.30
Folded News (over issue)	1.10	@	1.15
Old Newspapers—			
No. 1	1.00	@	1.05
No. 2	.85	@	.90
Mixed Papers—			
No 1	.85	@	.90
No. 2	.70	@	.80
Straw Clippings	.90	@	—
Binders' Clippings	.90	@	—
Kraft	2.10	@	2.25
New Kraft Cuts	2.25	@	2.40
Roofing Stock, f. o. b. Chicago, Net Cash—			
No. 1	$42.00	@	—
No. 2	40.00	@	—
No. 3	38.00	@	—
No. 4	38.00	@	—

PHILADELPHIA

[FROM OUR REGULAR CORRESPONDENT]

Paper

Bonds	.09½	@	.53
Ledgers	.15	@	.40
Writings—			
Superfine	.15	@	.20
Extra fine	.12	@	.22
Fine	.20	@	.30
Fine, No. 2	.20	@	.25
Fine, No. 3	.15	@	.20
Book, M. F.	.09¾	@	.12¾
Book, S. S. & C.	.11	@	.15
Book, Coated	.14¾	@	.20
Coated Lithograph.	.10	@	.15
Label	.10	@	.15
News	.05	@	.07
No. 1 Jute Manila	.12	@	.13
Manila Sul., No. 1	.08	@	.10
Manila No. 2	.07½	@	.08
No. 2 Kraft	—	@	.08½
No. 1 Kraft	—	@	.09½
Common Bogus	.03½	@	.04
Shaw Board	55.00	@	60.00
News Board	42.50	@	—
Chip Board	40.00	@	42.50
Wood Pulp Board.	2.75	@	3.00
(Carload Lots)			
Binder Boards—			
Per ton	70.00	@	75.00
Carload lots	65.00	@	70.00
Tarred Felts—			
Regular	61.00	@	63.00
Slaters	66.00	@	68.00
Best Tarred, 1-ply (per roll)	1.70	@	1.80
Best Tarred, 2-ply (per roll)	1.50	@	1.60
Best Tarred, 3-ply.	2.00	@	2.10

Bagging

F. o. b. Phila.

Gunny No. 1—			
Foreign	1.75	@	1.85
Domestic	1.75	@	2.00
Manila Rope	5.00	@	5.50
Sisal Rope	2.50	@	—
Mixed Rope	1.25	@	—
Scrap Burlaps	1.00	@	1.25
Wool Tares, heavy.	2.00	@	2.13
Mixed Strings	1.00	@	—
No. 1, New Lt. Burlap	3.50	@	3.75
New Burlap Cuttings	3.50	@	—

Old Papers

F. o. b. Phila.

Shavings—			
No. 1, Hard White	3.40	@	3.60
No. 2, Hard White	3.25	@	3.40
No. 1 Soft White	3.10	@	3.25
No. 2 Soft White	2.00	@	2.25
No. 1 Mixed	2.00	@	—
No. 2 Mixed	1.25	@	1.30
Solid Ledger Stock.	1.65	@	1.85
Writing Paper	1.50	@	1.75
No. 1 Books, heavy	1.45	@	1.60
No. 2 Books, light.	1.15	@	1.25
No. 1 New Manila.	2.40	@	2.50
No. 1 Old Manila.	1.50	@	1.75
Container Manila.	1.25	@	1.40
Old Kraft	2.15	@	2.25
Overissue News	1.05	@	1.10
Old Newspaper	1.05	@	1.40
No. 1 Mixed Paper.	.80	@	.90
Common Paper	.65	@	.70
Straw Board, Chip.	.65	@	.70
Binders Bd., Chip.	.65	@	.70

Domestic Rags—New.

Price to Mill, f. o. b. Phila.

Shirt Cuttings—			
New White, No. 1	.12	@	.13
New White, No. 2	.07	@	—
Silesias, No. 1	.08¼	@	.08½
New Unbleached.	.11½	@	.11¾
Washable	.05½	@	.05¾
Fancy	.07	@	.07¼
Cottons—according to grades—			
Blue Overall	.09¼	@	.09½
New Blue	.03½	@	.03¾
New Black Soft.	.06	@	.06¼
New Light Seconds	.03½	@	.03¾
Khaki Cuttings.	.05½	@	.06
Corduroy	.04	@	.04½
New Canvas	.10½	@	.11
New Black Mixed	.05	@	.05¼

Old

White, No. 1—			
Repacked	7.50	@	8.00
Miscellaneous	6.25	@	6.50
White, No. 2—			
Repacked	.05	@	.05½
Miscellaneous	.04¼	@	.05½
Thirds and Blues—			
Repacked	3.65	@	3.85
Miscellaneous	3.15	@	3.25
Black Stockings.	4.00	@	4.50
Roofing Stock—			
No. 1	2.30	@	240
No. 2	2.20	@	2.30
No. 3	1.15	@	1.20
No. 4	2.10	@	2.20
No. 5A	1.40	@	—
B	1.25		nominal
C	1.15		nominal

TORONTO

Paper

(Mill Prices to Jobbers f. o. b. Mill)

Bond—			
Sulphite	.11	@	.12½
Light tinted	.12	@	.13½
Dark tinted	.13½	@	.15
Ledgers (sulphite).	—	@	.13
Writing	.09½	@	.12
News, f. o. b. Mills—			
Rolls (carloads)	3.75	@	—
Sheets (carloads)	—	@	4.50
Sheets (2 tons or over)	—	@	4.75
Book—			
No. 1 M. F. (carloads)	9.00	@	—
No. 2 M. F. (carloads)	8.00	@	—
No. 3 M. F. (carloads)	7.50	@	—
No. 1 S. C. (carloads)	9.50	@	—
No. 2 S. C. (carloads)	8.50	@	—
No. 1 Coated and litho	14.50	@	—
No. 2 Coated and litho	13.50	@	—
No. 3 Coated and litho	12.75	@	—
Wrapping—			
Rag Brown	4.75	@	—
White Rag	5.25	@	—
"B" Manila	5.50	@	—
No. 1 Manila	6.50	@	—
Fiber	6.50	@	—
Kraft, M. F.	7.00	@	—
M. G.	7.15	@	—

Pulp

(F. o. b. Mill)

Ground wood	$27.00	@	28.00
Sulphite easy bleaching	55.00	@	60.00
Sulphite news grade	50.00	@	55.00
Sulphite, bleached.	75.00	@	80.00
Sulphate	60.00	@	62.50

Old Waste Paper

(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut.	3.60	@	—
Soft White Book shavings	2.80	@	—
White Blk. News	1.75	@	—
Book and Ledger—			
Flat Magazine and Book Stock(old)	1.25	@	—
Light and Crumpled Book Stock	1.10	@	—
Ledgers and Writings	1.50	@	—
Solid Ledgers	1.50	@	—
Manilas—			
New Manila Cut.	—	@	1.60
Printed Manilas	1.10	@	—
Kraft	2.05	@	—
News and Scrap—			
Strictly Overissue.	.80	@	—
Folded News	.80	@	—
No. 1 Mixed Papers	—	@	.60

Domestic Rags—

Price to mills, f. o. b. Toronto Per lb.

No. 1 White shirt cuttings	.13½	@	.13¾
No. 2 White shirt cuttings	.06½	@	.07
Fancy shirt cuttings	.07	@	.07¼
No. 1 Old Whites.	—	@	—
Third and blues	.05	@	.05¼
Per cwt.			
Black stockings	.04	@	—
Roofing stock:			
No. 1	2.20	@	—
No. 2	2.10	@	—
Manila rope	.06	@	.06¼
No. 2	1.55	@	—

BOSTON

[FROM OUR REGULAR CORRESPONDENT]

Paper

Ledgers—			
Sulphite	.12½	@	.18
Rag Content	.21	@	.36½
All Rag	.38	@	.50
Bonds—			
Sulphite	.09½	@	.14
Rag Content	.16	@	.33½
All Rag	.36½	@	.51
Writings	.10	@	.20
Superfines	.20	@	.48
News	.05	@	.06½
Book, M. F.	.07¼	@	.10¾
Book, Super	.07½	@	.11
Book, Coated	.13	@	.20
Coated Litho.	.10	@	.15
Label	.12	@	.15
Jute Manila No. 1.	.12	@	.13
Manila, Sul. No. 1.	.08	@	.09
Manila, Sul. No. 2.	.07½	@	.08
No. 1 Kraft	—	@	.09
No. 2 Kraft	—	@	.08
Common Bogus	.03½	@	.04
Straw Board	50.00	@	55.00
News Board	47.50	@	50.00
Chip Board	45.00	@	47.50
Wood Pulp Board	80.00	@	85.00
Binder Boards	75.00	@	85.00
Tarred Felts—			
Regular	61.00	@	63.00
Slater's	66.00	@	68.00
Best Tarred, 1 Ply, roll	1.50	@	1.60
Best Tarred, 2 Ply, roll	1.70	@	1.80
Best Tarred, 3 Ply, roll	2.00	@	2.10

Old Papers

Shavings—			
No. 1 Hard White	4.00	@	4.25
White Blank News.	1.75	@	2.00
Manila Env. Cuttings	2.80	@	3.00
No. 2 Hard White	3.25	@	3.50
No. 1 Soft White.	3.10	@	3.25
No. 2 Soft White.	2.25	@	2.50
No. 1 Mixed.	1.60	@	1.75
No. 2 Mixed.	1.25	@	1.50
Solid Ledger Stock.	2.00	@	2.25
Writing Paper	—	@	1.70
No. 1 Books, Heavy	1.60	@	1.80
No. 1 Books, Light	1.40	@	1.50
No. 1 New Manila.	2.50	@	2.60
No. 1 Old Manila.	1.75	@	2.00
Print Manila	1.05	@	1.20
Old Kraft	2.00	@	2.25
Overissue News	1.00	@	1.20
Old Newspapers	.90	@	1.00
No. 1 Mixed Paper.	.85	@	.90
Box Board, Chip.	.85	@	.90

Bagging

Price f. o. b. Boston

Gunny No. 1—			
Foreign	1.12½	@	2.00
Domestic	2.00	@	2.12½
Manila Rope	6.00	@	6.50
Mixed Rope	1.50	@	1.62½
Scrap Burlaps	1.25	@	1.50
Wool Tares, heavy.	2.00	@	2.13
Mixed Strings	1.50	@	1.62½
New Burlap Cuttings	2.00	@	2.25

Domestic Rags (New)

Price f. o. b. Boston

Shirt Cuttings—			
New White No. 1	.13½	@	.14
Silesias, No. 1	.09	@	.09½
New Unbleached.	.12½	@	.13
Washable	.06	@	.06½
Fancy	.07	@	.07¼
Cottons — according to grades, Blue Overall	.09½	@	.10
New Blue	.05½	@	.06
New Black, soft	.06	@	.06¾
Khaki Cuttings	.05½	@	.06
Corduroy	.04	@	.04½
New Canvas	.10½	@	.11

Domestic Rags (Old)

Price f. o. b. Boston

White No. 1—			
Repacked	7.50	@	8.00
Miscellaneous	6.50	@	7.00
White No. 2—			
Repacked	5.50	@	6.00
Miscellaneous	4.75	@	5.50
Thirds and Blues—			
Repacked	3.75	@	4.00
Miscellaneous	3.00	@	3.25
Roofing Stock—			
No. 1	2.25	@	2.37
No. 2	2.12½	@	2.25
No. 3	1.50	@	1.75
No. 4	1.15	@	1.20

Wax Paper Executive Committee

The executive committee of the American Waxed Paper Association will hold a meeting at Springfield, Mass., on September 9. Reports of the various standing committees will be made and there will be a discussion of the interpretation of trade customs. Plans will also be made for the cooperative association fall advertising campaign.

The association at this meeting will receive a report from the Advisory Council of the meeting of the New England Forest Experiment Station at Petersham, Mass., on September 5 and of the annual forestry conference of the Society for the Preservation of New Hampshire Forests which will be held near Keene, N. H., September 1-3. At the latter conference consideration will be given to ways and means by which the state can take advantage of the McNary-Clark bill for forestry protecton, etc.

New York Market Review

OFFICE OF THE PAPER TRADE JOURNAL,
WEDNESDAY, JULY 23, 1924.

While reports are coming in from various paper centers of wholesale changes in prices with a decidedly upward preference, paper men in the New York district are adhering closely to their present schedule and hardly a change in quotations has been made during the past week. In the opinion of prominent New York paper men the haphazard jumping of prices at this time is premature and will have a ruinous tendency on the market. While conditions have undergone some betterment in the last two weeks, that betterment has not been such as to encourage undue optimism. Conditions are still unsettled and no one can predict with any great assurance just what the future is to bring. Those being the facts, this is not judged an opportune time for a radical readjustment of prices. It is still difficult to get the buyers to break away from the hand-to-mouth buying tendency. Whether right or wrong they still cling to the belief that business conditions are going to remain unsettled for some time and that it is only good business precaution to buy closely to the demand of the hour and not speculate too far on the future. This is the spirit which regulates most of the buying and as long as that spirit prevails it is not likely that there will be any great price upheaval in the New York paper market.

The past week did not develop any very encouraging signs. There was no gain in business over that of the past week. Some say that business slipped backward a little while others declare that it held its own. In either case there is nothing in the week's record to make anyone oversanguine. The paper business has been in a rut and its ascent out of the pit is going to be slow and laborious and not by leaps and bounds. That, at any rate, is the opinion of the more conservative paper men. At this writing it is apparent that prices will hang about where they are until business comes through more liberally than it is coming through just now.

Nothing eventful has occurred during the past week regarding news print. There continues to be considerable inquiry with a view to future buying, but immediate orders are not increasing very rapidly.

Book papers had a fair week, some good business coming from the printers and publishers while still larger business is apparently in view.

Tissues remain about the same. They are still lagging woefully and it is hard to say when they will show any real vitality.

Writing papers showed a slight improvement and are expected to be in better demand from now on. The board demand is also picking up to some extent.

Mechanical Pulp

Conditions remain static in the pulp market. Prices hold firm and everything considered the pulp men have every reason to be satisfied with the outlook.

Chemical Pulp

All grades of chemical pulp are in good demand and the prices are strong. The foreign grades are in especial demand, unbleached sulphite and kraft having a steady call.

Rags

The rag market is experiencing vastly improved business, the scarcity of rags here and abroad having apparently whetted the appetites of the buyers. Prices are going upward whenever they move and during the past week roofing rags continued to grow in demand and their prices have again soared to a higher level. Because of the greater activity on the part of collectors there are more rags coming into the market daily, but the orders are so steady that the stock is kept moving rapidly and it will probably be a long time before there will be any accumulation of stock to speak of. The supply is so far short of the actual demand at this time that buying them at cut prices is out of the question. While some are inclined to think that the price is too high, they seem to be unwarranted in expecting any decline in price for a long time ahead.

Old Rope and Bagging

Old rope and bagging, the demand for which has been very slow, are both in a little better demand just now. More orders have been booked for both during the past week than for some time. The price holds firm and there is every prospect of a vast improvement in this line before long.

Waste Paper

The past week saw all grades of waste paper advancing in price. The demand has become quite spirited and so many sales have been made at prices in excess of the conservative market quotations that they have come to be the ruling price and are today governing the market. There is no accumulation and the stock is being caught up about as fast as it finds its way into the market. A still further advance in price at an early date is predicted.

Twine

While twine had another better week and is in much better demand than it has been for some time the prices remain fixed. It is now believed that the new price schedule which twine men were on the point of putting into effect several weeks ago may actually be put in effect early in September.

Boston Market Not So Active

[FROM OUR REGULAR CORRESPONDENT.]

BOSTON, Mass., August 26, 1924.—It seems as though the little activity in the box board and raw stock market has about spent itself, and things are again back to normal. It did not take very long to care for the slight extra demand which came upon the mills so suddenly, and the actual shortage was found to be in the raw stock market. Had the mills been able to jump into the buying market and get their raw stock without any question or delay, the flurry would have been absorbed in the ordinary course of events, but because there was found to be a shortage in raw stock it loomed up as a spurt for business and an advance in prices.

The general situation is unchanged and mills are not extending themselves in any new directions at this time. Sales are just fair, and the feeling is that everyone is buying as little as they can get along with.

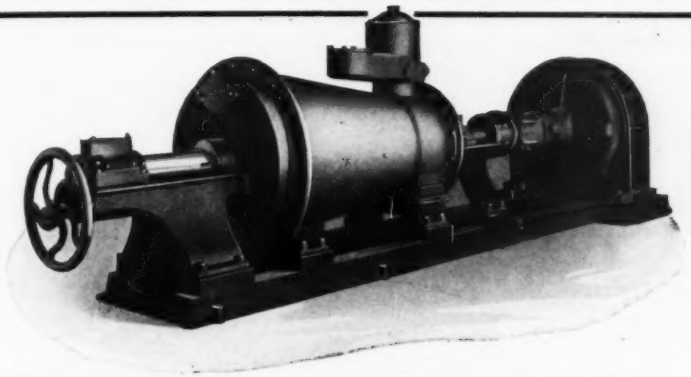
Tarred felts and roofing papers are in good demand, reflecting the call for them at this season of the year when considerable building repair work is done before the fall rains and winter season approaches. Prices are holding fairly steady.

The market on book, writings, bonds and ledgers shows no new activities, and mills have not at this writing any increased business in sight which would cause them to increase their runs. These lines have been in fair demand but have not showed any marked or special activity for many months.

Buys Control of Champion Paper Co.

WATERTOWN, N. Y., August 25, 1924.—Floyd L. Carlisle has purchased the interests of M. A. Hanna and C. H. Hanna in the Champion Paper Company of Carthage, N. Y. The new officers of the concern are Floyd L. Carlisle, president, and R. B. Maltby, vice-president, secretary and treasurer.

The equipment of the Champion Paper Company consists of one 1,000-lb. and two 1,500-lb. beaters, one refiner and one Fourdrinier, trimming 120 inches. The productive capacity is 60,000 lbs. of catalogue paper per 24 hours. The ground wood mill equipment consists of six hydraulic and two electric grinders and eight wet machines. The capacity is 80,000 lbs. per 24 hours.



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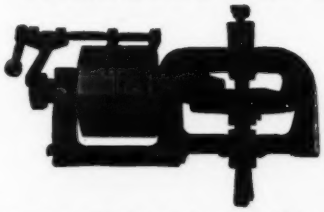

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Miscellaneous Markets

OFFICE OF THE PAPER TRADE JOURNAL,
Wednesday, August 27, 1924.

While nothing of conspicuous interest has transpired in the chemical market during the past week, everything continues to give emphasis to the fact that the market has seen the worst of its battle with poor business and that its experiences in the near future will be more agreeable than those which have recently disheartened the manufacturers. Two weeks ago the market saw the first evidences of the turning of the tide and the improvement, slight as it has been has nevertheless been consistent. That improvement continued again throughout the past week and at the present writing the market registers a still better tone. Prices, with one exception, continue to stand still. They have stood still so long that it seems difficult for them to move in either direction. The manufacturers will not permit them to go lower and buying is not yet active enough to warrant them going higher. But the move is likely to come any time and it is a safe conclusion that higher prices will rule on most commodities within a few weeks. Such slight changes as have occurred have been an advance and that is taken as an indication of the trend of the market. There is little evidence of price cutting anywhere and there is little or no distress stock in the market. Import business is better and inquiries for some of the leading commodities appear to indicate that large quantities are destined to be taken out before long.

The chemical men have their eyes fastened on the reports of general business conditions all over the country and express satisfaction with what these reports show. Business is apparently looking up in most localities but there is still something tugging at it and preventing it from getting its full vitality. It is the opinion of most business men that the tide has set in the right direction, but that the recovery of business will be slow. The chemical market will reflect, as it always does, the improvement that is shown in the various industries and trades which are the largest users of chemicals. In other words the chemical market will have to wait and follow the pace that general business sets.

BLANC FIXE.—Blanc fixe continues to be one of the slower moving commodities. There is very little available stock in the market but no one appears over anxious to obtain what there is or over alarmed at the fear that the time may come when they they will want to buy and will have difficulty in getting their orders filled. Production is still being curtailed to keep pace with the meager demand. It is quoted at from $75 to $80 a ton for the powder and from $50 to $55 for the pulp.

BLEACHING POWDER.—The demand for bleaching powder continues slight and had not the manufacturers foreseen the situation and kept down their production the market today would be clogged with a sorry accumulation of stock for which there was no sale. The price remains at from 1.90 to 2.15 cents a pound.

CAUSTIC SODA.—While caustic soda has not yet showed the vitality that has been expected of it there has been a slight improvement and there are apparently better days right at hand for it. There is no change in price, however, the quotation being from 3.10 to 3.15 cents a pound on a flat basis at the works.

CASEIN.—The quoting of casein by some manufacturers at current prices for the balance of the year has brought some orders for future shipment but has not greatly stimulated the market. The demand is better if anything than a week ago, however. The price is from 10½ to 11 cents a pound.

CHINA CLAY.—Quite a little new business is finding its way into the china clay column. Industries and trades which are numbered among the best buyers of this commodity are showing improved conditions and this accounts for the increased demand. It is quoted at from $16 to $20 a ton for the imported grades and from $12 to $15 a ton for the domestic grades.

CHLORINE.—Chlorine which picked up a little a week ago after a very slow spell has continued to show improvement although its demand is not yet sufficient to be termed satisfactory. The price is still at from 4.50 to 7.00 cents a pound in tanks.

ROSIN.—Rosin which last week jumped to a slightly better price made another leap upward. There is now an increasing foreign demand for it, some good sized orders coming in from abroad. The increase in price last week and this week was probably due to that fact for the home demand is not showing any notable increase. The price is now $5.95 for 280 pounds although some sales have been made at a figure in excess of that mark.

SALT CAKE.—Salt cake has apparently caught its stride. Last week was a greatly improved week for it and this week it made one of the most pronounced gains of any of the chemicals. The price does not change, however, it still being quoted at from $18 to $21 a ton.

SODA ASH.—Improvement continues to be noted in the demand for soda ash. The demand at the present time is very satisfactory and the week saw some excellent business booked. The price is firm but still stands at 1.38 cents a pound on a flat basis at the works.

SULPHATE OF ALUMINA.—Sulphate of Alumina made one of the real advances of the week. The demand has been very backward but the past week fanned it into a real semblance of activity. The price is from 1.30 to 1.35 cents for the commercial grade at the Eastern works and from 2.10 to 2.25 cents a pound for iron free.

SULPHUR.—Another dull week was experienced by sulphur. What little buying there is consists of small hand to mouth orders. The price holds at from $18 to $19 a ton.

TALC.—Talc had another good week which is gratifying to the talc men who had several exceptionally dull weeks to go through. The price refuses to move upward, however, and still stands at from $16 to $17 a ton where it has been for weeks.

Low Water in Connecticut Handicaps Mills

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., August 26, 1924.—Water in the Connecticut River the past week has been the lowest for many years, one day being two feet and eight inches below the crest of the dam. Full restrictions are imposed by the Holyoke Water Power Company limiting the use of water to indentured water. The steam auxiliaries of the paper mill plants have been in operation the past week. Power is being furnished several of them by the city electric plant and Holyoke Water Power Company electric plant. It is quite probable that unless rains come the head gates to the canal will be shut for a day or so this week.

To Handle Lines of Eastern Mfg. Co.

[FROM OUR REGULAR CORRESPONDENT]

BANGOR, Maine, August 25, 1924.—The Indiana Paper Company of Indianapolis, Ind., are now agents of the Eastern Manufacturing Company on Atlantic Bond.

The John Wilding Paper Company of Fort Wayne, Ind., are now agents of the company on Pilgrim, Systems, Manifest, and Atlantic Bonds, Pilgrim, Atlantic and Eastern Ledgers, Dearborn Cold Pressed and Velocity Bond.

Valley Paper Co. to Make Improvements

[FROM OUR REGULAR CORRESPONDENT.]

HOLYOKE, Mass., August 26, 1924.—The Valley Paper Company has awarded a contract for an addition to its plant to cost about $25,000, to the P. J. Kennedy & Co. firm of this city. The addition will be of brick, concrete and steel, two stories in height, and will house a blacksmith shop, office of the superintendent, and shower baths for the employees.